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Performance Audit

DEPARTMENT OF HIGHWAYS

Preconstruction and Construction Activities

This report contains recommendations for changes in highway related laws and for improvements in the management and operation of the Department of Highway's preconstruction and construction activities, including:

- ▶ Elimination or reduction in the number of financial districts with funding allocations based on need and costs.
- ▶ Participation by local governments in funding secondary, urban, and off-system roads.
- ▶ Reorganization of field activities and changes in preconstruction management.
- ▶ Realignment of administrative, financial, and Highway Commission districts.
- ▶ Evaluation of the role and duties of the Highway Commission.
- ▶ Preparation and biennial updating of a construction needs assessment.

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ROBERT R. RINGWOOD
LEGISLATIVE AUDITOR

July, 1982

JOHN W. NORTHEY
STAFF LEGAL COUNSEL

The Legislative Audit Committee
of the Montana State Legislature:

This is our performance audit of the Department of Highway's preconstruction and construction activities. A summary of the audit begins on page S-1.

This report contains recommendations for changes in highway related laws and for improvement in the management and operation of the preconstruction and construction activities of the department. Included in the audit is an evaluation of the role of the Highway Commission and the organization of the department. The Department of Highways and Highway Commission responses are contained beginning on page 131.

We wish to express our appreciation to the director and the staff of the department for their cooperation and assistance.

Respectfully submitted,

Scott A. Seacat
Principal Audit Manager
Performance and Sunset Audits

Approved:

Robert R. Ringwood
Legislative Auditor

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APPOINTIVE AND ADMINISTRATIVE OFFICIALS

HIGHWAY COMMISSION

| | | <u>Term Expires</u> |
|----------------------------------|------------|-------------------------|
| Ibert Hellebust, Chairman | Havre | 1985 |
| George Vucanovich, Vice Chairman | Helena | 1983 |
| Gerald Archambeault | Glasgow | 1983 |
| Paul Foster | Billings | 1985 |
| John Sullivan | Livingston | 1985 |

DEPARTMENT OF HIGHWAYS

| | |
|------------|----------|
| Gary Wicks | Director |
|------------|----------|

OFFICE OF THE LEGISLATIVE AUDITOR

PERFORMANCE AUDIT OF THE DEPARTMENT OF HIGHWAYS

PRECONSTRUCTION AND CONSTRUCTION ACTIVITIES

SUMMARY

This report is the result of our performance audit of the preconstruction and construction activities of the Department of Highways. Our audit also included a review of the department's acquisition and disposition of right-of-way property. The audit focused on the effectiveness and efficiency of the department's procedures.

Chapter I explains the organization and scope of the audit and describes how the audit was conducted.

Chapter II presents a brief description of the department, its revenue sources, and its expenditures. We describe the five major steps of the preconstruction process and the contract monitoring or construction step. The chapter includes information on the various types of roads and streets in Montana. We give the number of miles of each type of road, the source and amount of available funds, and the level of government responsible for various road activities.

Chapter III covers the Montana financial district law. The law divides the state into twelve geographic regions for the allocation of highway funds. We noted the law tends to hamper effective scheduling of projects due to the allocation system.

The primary road funding allocation does not consider variations in construction costs in different areas of the state or the type of needed construction work. Since funds must be spread throughout the state, areas with the worst primary roads do not receive an adequate allocation of funds and projects tend to be smaller with higher overhead costs. We recommend the Legislature either eliminate financial districts for the interstate and primary systems and allow the department to set statewide project priorities; or reduce the number of districts to five and base primary allocations on cost of needed improvements.

The present allocation systems for secondary, urban, and off-system roads lack reasonable relationships between funding criteria and the need for road projects. In addition, secondary and off-system funds are allocated to individual counties within financial districts resulting in small allocations. With these small allocations, projects tend to be split into small parts or delayed in hopes of accumulating funds. Similar to primary roads, the present systems ignore differences in construction costs from road to road and area to area. We recommend the Legislature do one of two things. The Legislature could eliminate financial districts and county distributions for secondary and off-system funds and urban area distributions for urban funds. This choice would allow the department to set statewide priorities after receiving each local government's priorities. The second choice involves allocating secondary, urban, and off-system funds to five financial districts with allocations based on common criteria related to need and cost.

In addition, we believe there should be some percentage of local government matching funds for secondary, urban, and off-system projects. This could make local officials more responsible for the funds. Local governments appear to have sufficient funds available with county road fund balances totalling approximately \$26 million in fiscal year 1980-81.

Chapter IV is concerned with the department's organization. The department is in the process of making organizational changes that address some of our concerns. These include placing one person in charge of each field office's operations, reducing the number of field regions to five, and having the regional managers report to someone outside the present functional divisions.

The department administers its operations across various construction, maintenance, gross vehicle weight (GVW), and right-of-way districts. In addition, there are five highway commissioner districts and twelve financial districts. These districts have varying boundaries and divide the state into different numbers and sizes of regions with accompanying overlapping authorities over the regions. We recommend the Legislature establish common boundaries for commission districts and financial districts if financial districts are retained. The department should generally use these same boundaries for its construction, maintenance, right-of-way, and GVW districts.

During our review, we found that there was no one person in the department responsible for a project in the preconstruction process. This may be one reason some projects do not meet preconstruction deadlines. Also, preconstruction may be more costly

than necessary since no one is responsible for monitoring costs. We believe the department should consider a project manager system for preconstruction projects. Managers would be given budgets and deadlines for their assigned projects.

Finally, we believe the department should retain its centralized system for location selection, environmental assessment, and design activities and also consider centralizing its right-of-way acquisition.

In Chapter V we analyzed the role of the Highway Commission by reviewing the actions it takes as shown by its meeting minutes, by examining the commission's authorities, and by comparing its statutory powers to similar boards and commissions. The commission's meeting minutes show little constructive action because it generally accepts recommendations prepared by the department. Some minor authorities of the commission are not directly related to highways and may be more appropriate for other agencies to administer. When comparing the commission to similar state boards and commissions it becomes apparent that only the Highway Commission does not have a statutorily specified role. We recommend the Legislature do one of three things: either set forth meaningful duties and responsibilities for the commission, make the commission advisory by statute, or terminate the commission.

Chapter VI presents the three areas of preconstruction planning. These areas are: project control, location selection and environmental assessment, and design. Under project control, we set forth the six steps for a needs assessment system. A needs assessment can show the department and the Legislature how much funding is required for a reasonable construction goal, and which

projects will be delayed if less funding is provided. The department last performed a needs assessment in 1974. We recommend the department prepare a needs assessment and update this assessment biennially.

Another part of project control involves monitoring projects through the preconstruction process. The department could improve its monitoring process by using its present payroll computer files to develop reports showing the time spent on various department activities.

We examined the department's environmental assessment procedures and did not disclose problems in the areas of concern expressed by the 1981 Legislature. There is not an excessive number of environmental impact statements, federal regulations concerning environmental analyses do not cause unnecessary problems, and there was not excessive use of consultants. We do make a recommendation to improve the department's procedures for writing environmental assessments.

The final section of Chapter VI covers the department's design function. We recommend several changes in design procedures, including those related to designer training, the use of location survey crews, the automation of design, and the performance of hydraulic design.

Chapter VII covers the acquisition, management, and disposal of highway right-of-way property. From 1979 to 1981 the department acquired 982 parcels. Ninety-three percent of the parcels, representing 65 percent of the total payments, were acquired by the Right-of-Way Bureau. The remaining 7 percent of the parcels,

representing 35 percent of the total payments, were acquired by the Legal Division through out-of-court settlements and jury awards. We reviewed a random sample of the acquired parcels. Right-of-Way Bureau parcel acquisition took from three months to about two and one-half years. The litigation time for parcels obtained by the Legal Division through the condemnation process ranged from 2½ years to over 13 years.

We believe the department could improve its acquisition procedures in several areas, including those related to previsits with landowners, collection of market data, combining appraisal and acquisition, and contracting with fee appraisers. We also make recommendations to the Legislature concerning the qualifications and payment of condemnation commission members.

From 1979 to 1981 the department sold 39 parcels of excess land for a total of approximately \$590,000. Presently, the department can sell excess land appraised at \$100 or less through a private sale. All excess land appraised over \$100 must be sold at a public auction. Excess land cannot be sold for less than 90 percent of the appraised value. We recommend the department be given the option to sell land at a public auction or through sealed bids. This would save the department time and money and result in sales prices closer to true market value. We also recommend raising the value of land that can be sold at a private sale to a level to approximate the cost of the sale to save the department money.

The previous owner of a parcel of property, or his successor in interest, can meet the high bid when excess land is sold and

reacquire the property. In some cases there are several successors in interest and in these cases the courts often have to decide which party has the option of matching the high bid. We recommend the successor in interest provision be removed if more than one person claims equal entitlement or if the use of the land has materially changed.

In some cases the department does not want to sell excess land. This land is often rented under use permits or lease agreements. As of February 1982, the department was renting 381 parcels for a total yearly charge of approximately \$57,000. Most of this money (\$46,500) is derived from leases on 15 parcels with improvements such as houses. Since many of the use permits and some leases are for no charge or low dollar amounts, we recommend raising the minimum fees to cover the cost of issuing and renewing the permits and leases.

Chapter VIII concerns the department's bidletting and contract monitoring. The 1981 Legislature was concerned with the competitive practices of the department. We did not find any cases in which the department had not let a construction contract through competitive bidding.

Montana law requires the department to give a 3 percent preference to resident contractors, unless a federal law or regulation prohibits such a preference. The federal government has ruled that it will not participate in any contracts to which a bidder preference was applied. The department has not awarded any federal-aid projects using the preference. However, on totally state-funded projects the state should apply the preference. The

department has not had occasion to use the preference on these projects because there have not been any nonresident low bidders.

The department prequalifies all contractors who wish to bid on highway construction contracts. The prequalification process involves an examination of the contractor's financial condition and previous experience by a committee of department officials. The end result is a limit on the size of project on which a contractor may bid. In 1981 there were 215 prequalified contractors with 85 being able to bid on any size project. We recommend changes that could make the prequalification system more effective.

The department monitors contractors with on-site personnel. These department personnel assure that contractors only use quality materials, that the materials are properly placed, and that the state only pays for the materials it receives. The department uses change orders to authorize unforeseen work which modifies the original contract. We did not find any abuses of change orders. Change orders did appear in 80 percent of our sample projects, but they generally did not represent significant dollar amounts in relation to bid prices. In most instances, the department, not the contractor, requested the change.

We recommend two changes related to contract monitoring. We recommend that authority to approve change orders for at least \$5,000 be delegated to the division level. We also recommend the department fully implement a prechecking system for payment documentation to aid in processing the final payments to contractors.

CHAPTER I

INTRODUCTION

At the request of the 1981 House Highways and Transportation Committee, the Legislative Audit Committee requested the Legislative Auditor to conduct performance audits of four functions of the Department of Highways (department) and the Highway Commission. These four functions are:

- department preconstruction activities,
- department acquisition and disposition of right-of-way property;
- construction project bidletting and control; and
- motor pool financing and operations.

The 1981 Legislature also passed HJR 56 which directed an interim committee to conduct a study of the administration and operation of the Department of Highways and the Highway Commission in areas in which performance audits are not conducted. We coordinated our performance audits with the Joint Subcommittee on Highways (the interim committee conducting the study) to minimize duplication of effort.

This report is the result of performance audits of the department's preconstruction activities, acquisition and disposition of right-of-way property, and construction project bidletting and control. These three aspects are all related to the road construction process and the performance audits on these aspects were conducted concurrently. A separate report presents the performance audit conducted on motor pool financing and operations.

The Department of Highways is responsible for planning, laying out, altering, reconstructing, improving, repairing, and

maintaining state and federal-aid highways. The Highway Commission is responsible for the designation and abandonment of state and federal-aid highways and for the awarding of all construction contracts on those highways.

ORGANIZATION OF REPORT

This report is presented in eight chapters. Chapter I presents an introduction to the report and summarizes the objectives and scope of our performance audit.

Chapter II presents background information on the operations of the department and the Highway Commission with emphasis on the preconstruction and construction processes. Also included is a summary of road responsibilities and highway financing in Montana.

Chapter III examines Montana's financial district law. Included are recommendations to increase the efficiency and effectiveness of the distribution of highway funds for construction and reconstruction of Montana's highways.

Chapter IV discusses possible improvements in the organization of the department.

Chapter V presents background information on the Highway Commission and examines its role as a state agency.

Chapter VI discusses the department's preconstruction activities. Included are recommendations to improve the project control, environmental analysis, and design processes.

Chapter VII examines the department's procedures used in the acquisition and disposition of right-of-way property. Included are suggested improvements in the appraisal, negotiation, and eminent domain procedures. Recommendations are also presented on the sale and management of excess land.

Chapter VIII examines the bidletting and contract monitoring processes. Included are discussions and suggested improvements for competitive bidding, resident bidder preference, contractor prequalification, bid tabulations, change orders, and project checking.

MANAGEMENT MEMORANDUM

In addition to the recommendations stated in the report, we also made recommendations in seven minor areas in a management memorandum. These areas are:

- Preconstruction and construction records management.
- Cross-referencing system for preconstruction and construction records.
- Retention of bid tabulation computer file.
- Early activities report for project monitoring.
- Calculator and computer use in design.
- Contractor debarment rules.
- Contractor prequalification statement.

OBJECTIVES OF AUDIT

The objectives of the audit were:

1. To determine if the department is achieving the results established by the legislature and whether the department has considered alternatives that might yield desired results at a lower cost.
2. To determine if the department is managing and utilizing its resources economically and efficiently and to identify the causes of inefficiencies or uneconomical practices.
3. To determine whether the department is complying with laws and regulations concerning matters of economy and efficiency.

SCOPE OF AUDIT

The audit focused on the effectiveness and efficiency of the Department of Highway's preconstruction and construction processes. Included are the right-of-way activities of the department. The audit was conducted in accordance with generally accepted government performance auditing standards. The Department of Highways and the Highway Commission were found to be substantially in compliance with laws and regulations related to economy and efficiency of the preconstruction and construction activities. Some minor areas of noncompliance are discussed in the report.

During the audit we visited several of the department's field offices. These visits included examination of file documentation for construction projects and right-of-way parcels, observation of on-going and completed construction projects, and interviews with the department's and contractors' personnel.

At the headquarters office in Helena we examined files and examples of the department's work. We selected samples of contract awards, completed construction projects, right-of-way acquisitions and dispositions, consultant design contracts, and eminent domain actions. We examined department policies and procedures, publications, management reports, meeting minutes, and in-house reports. We reviewed the department's organization and employee workload and distribution. We interviewed department employees. We also interviewed the staff of state, federal, and local government agencies concerned with Montana's highways. Additional contacts were made with various associations and citizen groups, contractors, consultant designers and appraisers, and other states' highway

departments. Finally, we sent a questionnaire to a sample of individuals who have sold right-of-way property to the department.

The audit only included a review of those specific areas of the department discussed above which includes the majority of the functions of the Engineering Division and part of the duties of the Program Development Division. Operations of the department excluded from review include the Gross Vehicle Weight Division and the Maintenance Division. Limited involvement was necessary with the Centralized Services Division and the Personnel and Civil Rights Division. Legal Division involvement in the eminent domain process was reviewed. We did not test controls over computer applications used in the preconstruction and construction activities of the department. The audit did not include a review of the financial status of the department.

CHAPTER II

BACKGROUND

The Montana Highway Commission was created in 1913 to designate and create a system of state roads to connect market and business centers. The commission provided the counties with state aid to construct and maintain those roads. When the federal government began providing financial aid to states in 1916, the Highway Commission was assigned to administer the program. The commission continued to administer the various state and federal road programs until Executive Reorganization in 1971. At that time, the Department of Highways was created. The department is headed by a director who administers the department's programs. The Highway Commission became a quasi-judicial board attached to the department.

HIGHWAY DEPARTMENT

The department has three major functions: road construction, road maintenance, and gross vehicle weight enforcement. The department is organized in seven headquarters divisions, plus the director's staff. The headquarters divisions are:

- Centralized Services;
- Engineering;
- Program Development;
- Gross Vehicle Weight;
- Legal;
- Maintenance and Equipment; and
- Personnel and Civil Rights.

In addition, the department has field personnel stationed in offices located in Billings, Bozeman, Butte, Glendive, Great Falls, Havre, Kalispell, Lewistown, Miles City, Missoula, and Wolf Point. Right-of-Way field personnel are located in Billings, Butte, Great Falls, Glendive, and Missoula.

Our audit focused primarily on the work of the Engineering Division, although we did evaluate other divisions when their work was related to preconstruction, construction, or right-of-way. The Engineering Division is made up of seven units and bureaus which have the following responsibilities.

- Project Control Unit - schedules and monitors projects and funding.
- Preconstruction Bureau - designs roads, performs environmental impact assessments, and lets bids.
- Right-of-Way Bureau - acquires, manages, and disposes of road right-of-way and assists in relocating utilities, businesses, and persons.
- Bridge Bureau - designs bridges.
- Materials Bureau - tests road, bridge and construction materials.
- Construction Bureau - monitors construction projects.
- Secondary Unit - serves as liaison with local governments on construction of urban and secondary roads.

Department Revenue

The department receives most of its revenue from four sources: federal highway construction funds, state motor fuel taxes, state gross vehicle weight taxes, and federal mineral lease royalties. Illustration 1 shows the revenue for the department over the last five years.

DEPARTMENT REVENUE (In Millions of Dollars)
Fiscal Years 1976-77 to 1980-81

| <u>State Fiscal Year</u> | <u>Federal Highway Funds</u> | <u>State Fuel Taxes</u> ¹ | <u>Gross Vehicle Weight Taxes</u> | <u>Federal Mineral Lease Royalties</u> | <u>Other</u> | <u>Total</u> |
|----------------------------------|--------------------------------------|--|---|--|--------------|--------------|
| 1980-81 | \$123.2 | \$48.0 | \$16.1 | \$4.4 | \$0.8 | \$192.5 |
| 1979-80 | 117.6 | 50.1 | 18.6 | 3.1 | 3.6 | 193.0 |
| 1978-79 | 80.9 | 47.8 | 16.5 | 2.8 | 6.0 | 154.0 |
| 1977-78 | 87.2 | 46.9 | 17.1 | 2.7 | 4.7 | 158.6 |
| 1976-77 | 98.0 | 43.9 | 14.0 | 3.6 | 4.8 | 164.3 |

Source: Compiled by the Office of the Legislative Auditor.

¹ Includes portions of the state fuel tax funds which go to cities and towns, Highway Patrol, Department of Revenue, and some other minor uses.

Illustration 1

Federal highway funds may only be used for preconstruction and construction activities and not maintenance. The amount of federal funding available is uncertain from year to year. Congress passes a federal highways bill every four or five years. This bill determines funding levels for the succeeding years. However, individual federal obligations for each year determine exactly how much federal funding will be available. In the past, the actual federal obligations have been smaller than the federal highways bill authorized for most years. Illustration 2 compares the amount authorized for Montana in the federal highway bill with the amount actually obligated. The amount of federal funds shown in Illustrations 1 and 2 differ because the amounts in Illustration 1 include obligations from prior years.

FEDERAL HIGHWAY FUNDS (In Millions of Dollars)
Fiscal Years 1979-80 to 1981-82

| <u>Federal Fiscal Year</u> | <u>Amount Authorized</u> | <u>Amount Obligated</u> |
|--------------------------------|--------------------------|-------------------------|
| 1981-82 | \$110 | \$65.4 |
| 1980-81 | 142 | 87.9 |
| 1979-80 | 144 | 82.7 |

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 2

The second largest source of revenue are the state fuel taxes. These fuel taxes generated \$48 million in fiscal year 1980-81. Of this, \$11.7 million came from the 11 cents per gallon diesel fuel tax and \$36.3 million came from the 9 cents per gallon gasoline tax. However, a significant proportion of fuel tax revenue goes for other purposes. For fiscal year 1980-81, the cities and counties received \$7.2 million for local roads. In addition, the Department of Justice received \$8.1 million for the Highway Patrol. Another \$436,000 went to the Department of Revenue for collection of the tax. There are some other minor uses of fuel taxes such as the state park account and the snowmobile account.

Gross vehicle weight fees amounted to approximately \$16.1 million in fiscal year 1980-81. Of this, about \$1.7 million was expended by the department for collection and enforcement. The remaining \$14.4 million was available to the department for construction and maintenance activities.

The fourth major source of revenue is federal mineral lease royalties. Three-eighths of mineral lease rents and royalties collected by the federal government on federal land in Montana is

returned to the state. Thirty-seven and one-half percent of that money is allocated to the department. The remainder is paid into the Earmarked Revenue Fund for state equalization aid to public schools. In fiscal year 1980-81 the department received \$4.4 million in federal mineral lease royalties.

Department Expenditures

The department spends money for three major activities: construction, preconstruction, and maintenance. Illustration 3 lists the expenditures by category for the last five fiscal years.

DEPARTMENT EXPENDITURES (In Millions of Dollars) Fiscal Years 1976-77 to 1980-81

| <u>Fiscal Year</u> | <u>Construction</u> | <u>Preconstruction</u> | <u>Maintenance</u> | <u>Other</u> | <u>Total</u> |
|------------------------|---------------------|------------------------|--------------------|--------------|--------------|
| 1980-81 | \$137.4 | \$11.4 | \$30.7 | \$ 8.6 | \$188.1 |
| 1979-80 | 127.0 | 15.2 | 25.5 | 10.8 | 178.5 |
| 1978-79 | 83.9 | 15.5 | 22.5 | 10.0 | 131.9 |
| 1977-78 | 97.5 | 14.0 | 21.9 | 6.2 | 139.6 |
| 1976-77 | 118.2 | 11.7 | 19.2 | 5.2 | 154.3 |

Source: Compiled by the Office of the Legislative Auditor from department records

Illustration 3

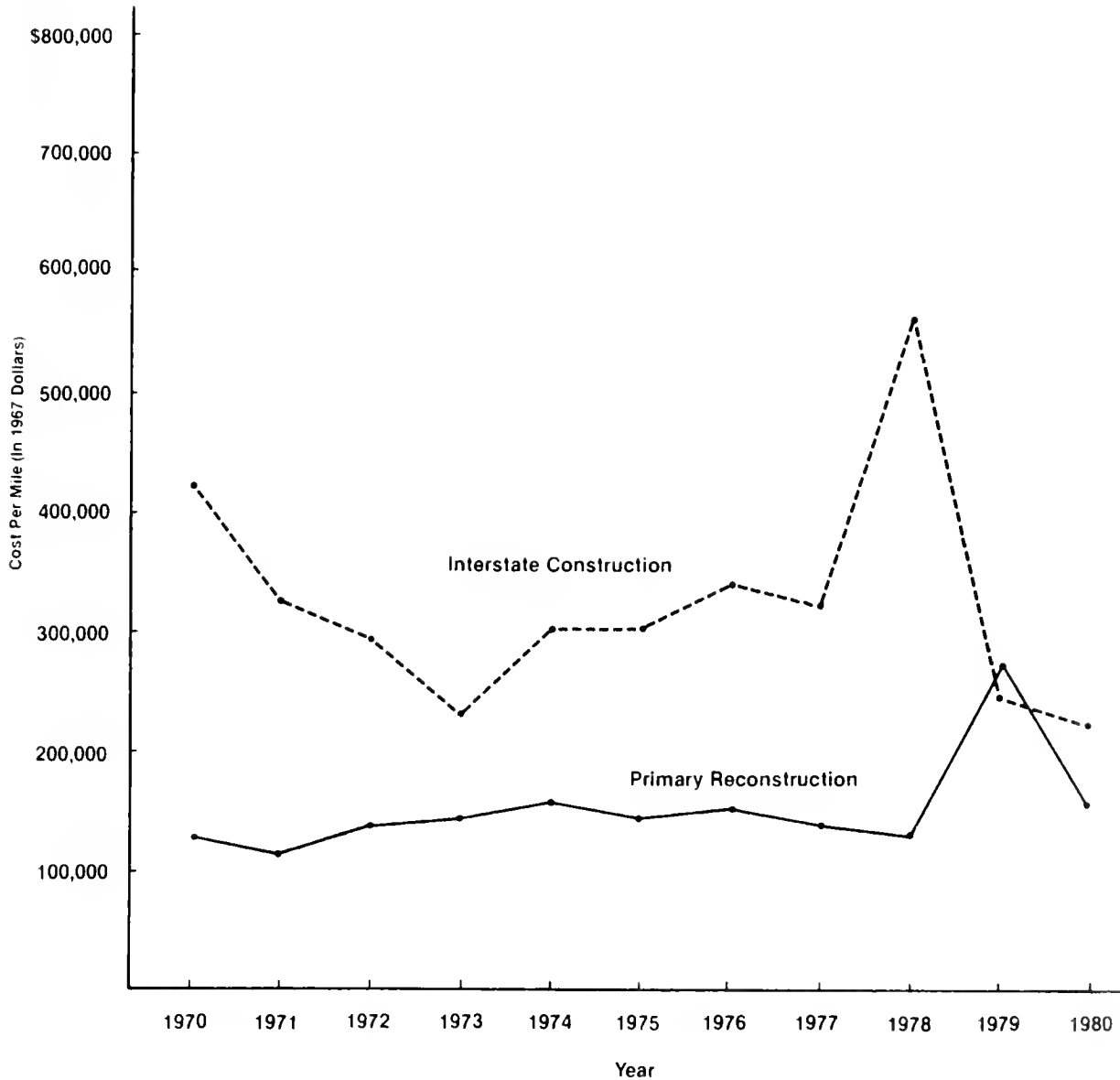
The largest component of expenditures is construction. Of this, approximately 88 percent is paid to the contractors, while the remaining 12 percent is used for construction supervision and administrative overhead for the department.

Among the concerns of the 1981 Legislature was that more money was being spent on construction and fewer miles of road are being built. Our analysis indicates that construction costs have

increased dramatically. Highway construction costs in Montana have about tripled since 1967. The same trend has taken place on the national level.

We compared the cost per mile to construct interstate roads and to reconstruct primary roads over the past decade. The cost per mile has generally risen. However, when adjusted for inflation, the cost per mile has been relatively constant. Illustration 4 shows the construction cost per mile for interstate and the reconstruction cost per mile for primary roads after adjustments for inflation. The peaks in 1978 and 1979 result from some expensive miles of construction on the interstate and primary systems, respectively.

**COST PER MILE FOR INTERSTATE
AND SECONDARY ROADS
(Adjusted for Inflation - 1967 Dollars)**



SOURCE: Compiled by the Office of the Legislative Auditor from department records

Illustration 4

PRECONSTRUCTION AND CONSTRUCTION PROCESSES

An extensive process is required before a project is placed on the preconstruction schedule. The process can be divided into three phases: system studies, project selection, and project formulation. In the system studies phase, suggestions for broad changes are submitted by the public, local government officials, the department, and other state agencies.

Project selection is the responsibility of local government officials for the urban and secondary systems. The department selects projects for the primary system. The Federal Highway Administration (FHWA) and the department cooperate in selecting projects for the interstate system. Eventually all projects receive FHWA approval when federal funds are involved.

Project formulation occurs when all project selections come to the department for a final review. All projects are compared to estimated available funding and a tentative construction program is developed. Approved projects are now ready for the preconstruction process which consists of five major steps:

- Project Control;
- Location Selection and Environmental Assessment;
- Design;
- Right-of-way Acquisition; and
- Bidletting and Contract Award.

The following sections briefly describe each of the preconstruction steps and the contract monitoring or construction step.

Project Control

Once it has been decided that a project is to be constructed, it is placed on the preconstruction schedule by the Project Control

Unit. The scheduling procedure involves projecting when state and federal funds will be available and when environmental assessment, design, and right-of-way resources will be available. Both one-year and five-year plans of projects to be completed are developed. Department management and the Highway Commission approve the one and five-year plans. When the plans have been reviewed and approved, the projects are monitored as they flow through the preconstruction process.

Location Selection and Environmental Assessment

The Preconstruction Bureau has primary responsibility for location selection and environmental assessment. The bureau's Location and Road Design Section selects alternative locations for the road. The Environmental and Landscape Unit provides information for the studies of environmental impacts. The Location and Road Design Section studies the data on the alternatives and recommends a route to the Highway Commission. Also, involved in this process are:

- The Plan Section of the Right-of-Way Bureau which helps to determine the right-of-way impacts.
- The Traffic, Hydraulics, and Surfacing Units of the Preconstruction Bureau which provide data on impacts.
- The Photogrammetry Unit of the Preconstruction Bureau which provides aerial surveys.
- The Public Hearings Unit which manages public notice and public input.
- The Construction Bureau which performs field reconnaissance and surveys.
- The Materials Bureau which provides data on available road building materials and the geology of the alternatives.
- Land use planners from the Program Development Division which provide information on land use impacts.

State and federal agencies, local governments, and citizen groups are consulted during the process.

Design

Once the location has been approved, the design phase of the process begins. The design phase involves detailed surveying of the route and production of detailed drawings of the road and necessary structures.

The Location and Road Design Section of the Preconstruction Bureau has primary responsibility for the design of roads. Most designs are performed by the central staff in Helena. Additionally, the Construction Bureau field offices design some projects, while outside consultants perform the remainder. The consultant designers are monitored by the Consultant Design Section. Bridges are designed by the Bridge Bureau. The Traffic Unit designs intersections, interchanges, and traffic control devices. The Hydraulics Unit provides data on hydrology in the area and designs structures (other than bridges) to accommodate surface waters. The Surfacing Unit develops the specifications for the road materials. The Photogrammetry Unit and field Construction Bureau personnel perform the surveys.

Right-of-way Acquisition

Once the location has been selected, a preliminary study is performed to determine what parcels are needed, who owns them, and what their approximate value may be. When the design plans are completed, the Preconstruction Bureau details exactly what land is needed. The land is appraised and an offer is made to the owner by the Right-of-Way Bureau. If an agreement cannot be

negotiated with the owner, the case is turned over to the Legal Division. The Right-of-Way Bureau also handles the relocation of utilities, railroads, businesses, and private individuals.

Under federal law all private individuals who are displaced by a construction project must be found equivalent replacement facilities. Field Right-of-Way personnel find new housing for relocated persons and pay relocation costs to individuals and businesses. If utility lines or railroad tracks must be moved, the Utilities Section secures agreements for these relocations.

The Lands Section manages excess right-of-way property. Its duties include contracting for the removal of buildings from right-of-way and disposing of excess land.

Bidletting and Contract Award

Once the final design is approved by the Engineering Division and the right-of-way acquired, the bid package is prepared. The Contract Plans Section of the Preconstruction Bureau prepares the bid package which includes the preparation of the final cost estimate for the project. Interested parties are notified of the upcoming bid lettings. Then the bid package may be requested. Only firms approved by the Prequalification Committee may submit bids. The Contract Plans Section receives the returned bids, opens them, and analyzes them. It then prepares the recommendation for award which is forwarded to the Highway Commission. At its next meeting, the commission awards the contracts.

Contract Monitoring

The final stage in the process is the actual construction of the project by a contractor and the monitoring by the Construction Bureau. When construction of a project begins, the field office

assigns a field project manager and inspectors to monitor that project. They are responsible for assuring that construction goes as planned, for recommending change orders or additional work orders, and for preparing the invoices for payments to the contractor. Change orders and additional work orders must be approved by the Helena headquarters. The invoices are submitted to Helena headquarters for review and processing for payment.

The Materials Bureau is also involved in construction monitoring. Its personnel test samples of the material used to construct the road. These samples are analyzed to assure that the proper quality is maintained.

The six steps for preconstruction and construction of highways are covered in detail in Chapters VI, VII, and VIII. Included in each chapter are various recommendations to improve the economy and efficiency of department operations.

ROAD RESPONSIBILITIES

The roads and streets in Montana are the responsibility of federal, state, county, and city officials, depending on the type of road. Roads can be divided into five categories. Illustration 5 details the number of miles of each type of road in Montana.

ROAD MILEAGE BY TYPE

| <u>Type of Road</u> | <u>Number of Miles</u> |
|---------------------|------------------------|
| Interstate | 1,193 |
| Primary | 5,466 |
| Secondary | 4,701 |
| Major Urban | 334 |
| Local | 66,484 |
| Total | 78,178 |

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 5

The legislature has divided the responsibility for roads among the state, the counties, and the cities. The state establishes priorities for interstate and primary projects, while local officials set priorities for secondary, urban, and local projects. The state supervises construction if federal and state funding is involved, and the local governments supervise construction if only local funds are involved. Maintenance for interstate and primary roads is the responsibility of the state. Secondary, urban, and local roads are to be maintained by the local governments, except for a few selected sections of secondary and urban roads which are maintained by the state. Illustration 6 summarizes the responsibilities of the levels of government for each type of road. The various types of roads, allocation criteria, and funding are discussed in Chapter III, along with our recommendations for improvements.

ROAD RESPONSIBILITIES

| Type of Road | Miles | Source of Funds | Available Federal and State Funds FY 1981-82 | Federal and State Funds Allocated to | Allocation Criteria | Priorities Established By | Construction Supervised By | Maintained By |
|--------------|--------|-----------------|--|--------------------------------------|--|---------------------------------------|----------------------------|--------------------|
| Interstate | 1,193 | Federal & State | \$39.7 million | Financial Districts | Cost to Complete System | State with Federal Approval | State | State |
| Primary | 5,466 | Federal & State | \$52.9 million | Financial Districts | Deficient Mileage | State with Federal Approval | State | State |
| Secondary | 4,701 | Federal & State | \$18.4 million | Financial Districts and Counties | Rural Population Rural Road Mileage Rural Taxable Valuation Land Area | Local with State and Federal Approval | State ¹ | Local ² |
| Urban | 334 | Federal & State | \$ 6.7 million | Urban Areas over 5,000 Population | Proportion of Population | Local with State and Federal Approval | State ¹ | Local ² |
| Off-System | 66,484 | Federal & State | \$ 0.0 ³ | Financial Districts and Counties | Rural Population Rural Road Mileage Rural Taxable Valuation Land Area | Local with State and Federal Approval | State ¹ | Local |

¹Local governments have the option of constructing roads with their own funds with total local control.

²Some secondary and urban roads are maintained by the state.

³The federal government did not provide funding for off-system projects in fiscal year 1981-82.

Source: Compiled by the Office of the Legislative Auditor

Illustration 6

CHAPTER III

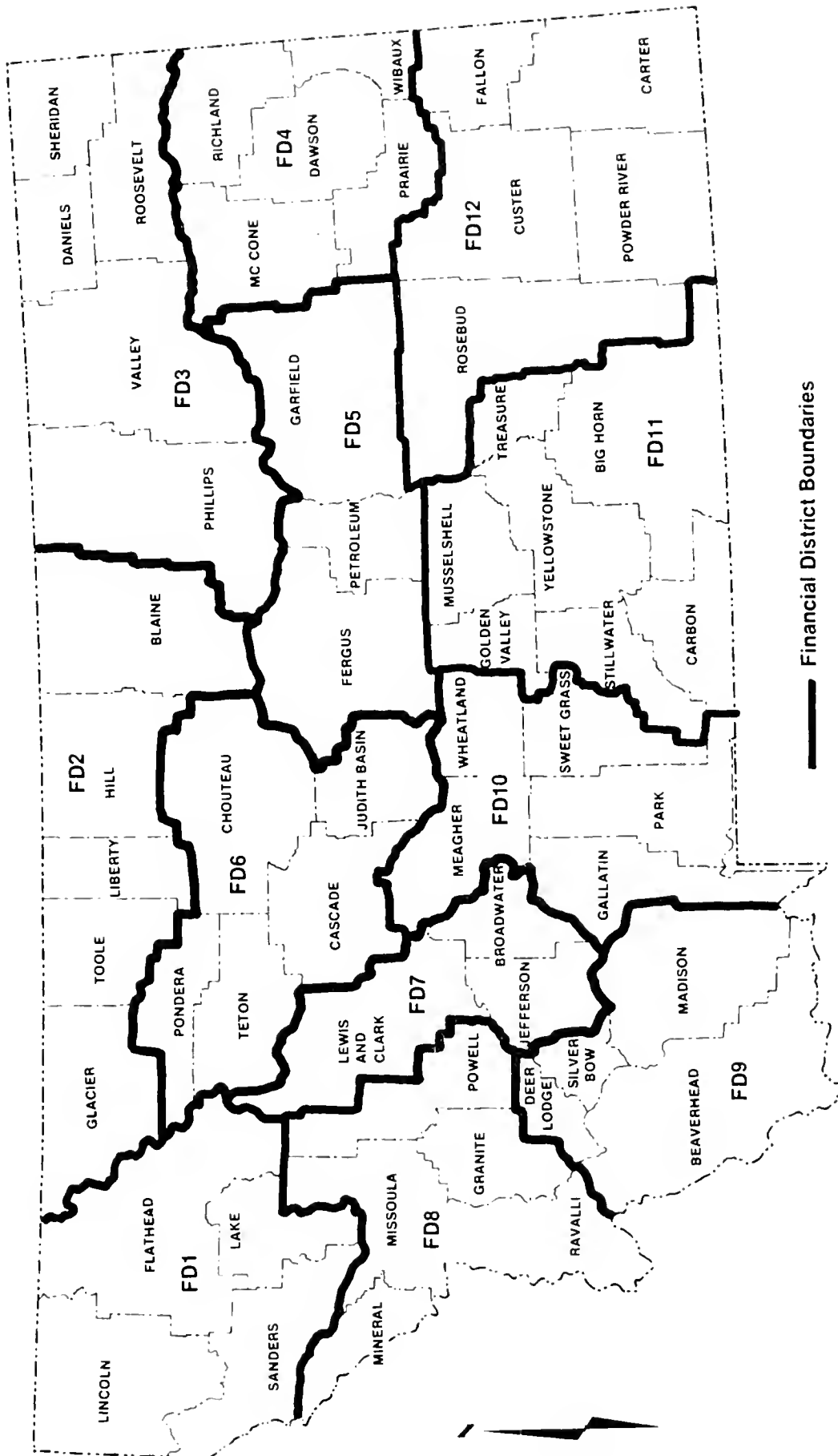
FINANCIAL DISTRICT LAW

The financial district law was enacted in 1927 by the Legislature. The law divides the state into twelve geographic regions for the allocation of highway funds. Its original function appears to have been to assure that road construction occurred throughout the state. The law has changed little since 1927 with the exception of establishing different allocation methods for interstate, primary, secondary, urban, and off-system funds.

Illustration 7 shows a map of the financial districts. Each region receives a funding allocation for each road system according to the following criteria:

- Interstate funds are allocated to each financial district based on the cost to construct or reconstruct the interstate roads in that district.
- Primary funds are allocated to each district based on the number of deficient primary road miles in that district. This method is an interpretation of the financial district law by the department. The number of deficient miles for a segment of highway is the percentage deficiency from a perfect road times the length of the segment. For example, a 10-mile segment of road with a 30 percent deficiency is said to have 3 deficient miles. (See Appendix A for detail.)
- Secondary funds are allocated to each district based on the rural population, the rural road mileage (excluding primary and interstate), the land area, and the rural taxable valuation. These funds are in turn allocated to the counties based on the same criteria.
- Urban funds are allocated to each city of over 5,000 population based on population.
- Off-system funds are allocated the same way as secondary funds.

FINANCIAL DISTRICTS



SOURCE Department of Highways records.

Illustration 7

The department also receives federal funds for other types of projects such as bridge replacement and hazard elimination. These funds are not allocated to areas of the state. Appendix B shows the allocations by road system for fiscal year 1981-82. The federal government has not released any off-system funds for fiscal year 1981-82 and may not in the future.

We examined the financial district law after discussions with department officials revealed that the law has considerable impact on their ability to schedule projects. The following sections detail our analysis of the law and its weaknesses. The discussions are divided into those which impact the interstate and primary systems and those which impact the local systems (i.e., secondary, urban, and off-system).

INTERSTATE AND PRIMARY

The interstate and primary systems are grouped together because they are the major roads for travel across the state and are planned, built, and maintained by the state. Our examination of the financial district law revealed a major concern related to the primary system allocation. The allocation criteria in the law limit the department's ability to effectively schedule projects. Also, the definition of a deficient road in the primary system is unrealistic.

The interstate system is not affected as much by the financial district law because the interstate lies in fewer districts and the department has greater flexibility in moving funds among these districts. Also, funds are allocated based on the costs to construct or reconstruct the interstate in each district, which we believe is

more appropriate than the primary distribution formula. For these reasons our comments in the following section are directed mostly at the primary system.

Primary Road Funding Allocation

As mentioned earlier, primary funds are allocated to each district based on deficient primary road miles in that district. Basing the allocation on deficient road mileage does not take into account variations in cost from area to area and variations in the type of work needed to be performed. Construction in the mountains of western Montana can cost much more than construction on the plains of eastern Montana. Two six-mile projects constructed in 1980 show this difference. One project in the mountains of southwest Montana cost \$4.1 million, while the other on the plains of central Montana cost \$2.5 million. In addition, roads in similar overall condition can require repairs costing drastically different amounts. In 1980, the department constructed two twelve-mile overlay projects. One cost \$1.4 million, while the other cost nearly twice as much at \$2.7 million. The major difference in these two projects was the thickness of the overlay.

With twelve financial districts, the funding for each district is quite small. For fiscal year 1981-82, the allocations ranged from a high of \$6.7 million to a low of \$2.8 million. With these small allocations, the mileage of road which could be constructed or overlaid in each district is minimal since the average cost for construction is about \$680,000 per mile, while the average cost for overlays is about \$140,000 per mile. These figures only include

actual payments to contractors and not other department costs. With small allocations and high construction costs, the projects tend to be small, and small projects have higher overhead costs as a percentage of construction costs. For example, the \$2.8 million allocation would construct only about four miles of road.

As noted previously, interstate money is allocated based on the cost to construct or reconstruct the interstate in each financial district. Primary funds are allocated based on deficient primary mileage. The department may increase the interstate allocation to any district up to 300 percent in a given year, provided that future allocations are reduced to "pay back the loan." The flexibility on the primary system is much less since allocations may only be increased by 25 percent. The department has violated the law because of this lack of flexibility. We found two districts in which the department had overspent the fiscal 1980-81 primary allocations in excess of the statutory maximums.

The financial district law does not allocate primary funds to the areas of the state with the worst primary roads as defined by the department. We noted that two of the financial districts have about 60 percent of the primary road mileage which are in critical need of repair, according to the department. However, the allocations for these two districts amount to only 24 percent of the primary funds. To compound the problem, these districts tend to have higher per mile construction costs when compared to a state-wide average. This is mainly due to their location in the western mountainous part of the state.

The financial district law causes projects to be constructed based upon their priority within their respective financial districts regardless of their priority statewide. We compared the department's district-by-district priority rankings with the department's listing of the top 48 projects statewide. We found several cases in which the top priority in a district was low on the statewide list or not even on the list. As an example, the top priority in Financial District 12 ranks 36th overall. However, the 11th priority in Financial District 8 ranks 30th overall. In other words, financial districts with many critical miles can have several projects that on a statewide basis would rank higher than the top priority project of a district with few or no critical miles. But the statewide ranking has little meaning since the top priority projects in each district receive that district's funding.

Our analysis indicates the department also has problems with coordinating funds for projects which cross financial district boundaries. To build the project as a single unit, the funding in both districts must be available at the same time. If funding is not available, the project must be delayed until funds are available or split into projects small enough for the funding to be adequate. In both cases, the costs are increased. Also, the department's accounting for funds is complicated since the department must keep track of funds by district. A project which crosses district boundaries must be given a different project number for each district and the costs associated with each project number must be accounted for separately.

Deficient Primary Roads Criteria

Our analysis also indicates the primary funding allocations are being distorted. Under the financial district law, primary roads which do not meet all of the latest design standards are considered to be only partially completed. These partially completed sections are added to any incompleted sections to determine what percent of the available funds each district is to receive. The distribution is most affected by "partially completed" sections since few new sections are added to the primary system. The department defines partially completed to mean any section of primary road which is not 100 percent perfect and calls these sections deficient. Roads in very good condition and, in some cases, new roads contribute to the deficient mileage in their district. We reviewed the department's ratings of all primary road sections newly constructed or improved in 1979 and 1980. We found sufficiency ratings from 61 to 98 on newly constructed sections and from 35 to 97 on improved sections. These sufficiency ratings are low in some cases because it is not always cost effective to bring every section up to 100 percent sufficiency. Illustration 8 shows the ratings for all of the primary road sections completed in 1979 and 1980.

SUMMARY OF SUFFICIENCY RATINGS OF 1979 AND 1980 PRIMARY CONSTRUCTION PROJECTS

| <u>Type</u> | <u>Sufficiency Rating</u> | | | | | |
|-------------|---------------------------|--------------|--------------|--------------|--------------|------------|
| | <u>0-40</u> | <u>41-60</u> | <u>61-70</u> | <u>71-80</u> | <u>81-90</u> | <u>91+</u> |
| Constructed | 0 | 0 | 2 | 2 | 4 | 4 |
| Improved | 2 | 1 | 4 | 3 | 1 | 2 |

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 8

We discussed the sufficiency rating system with department officials and they commented that 100 percent sufficiency is unrealistic. They suggest that the law should be changed to allow the department to determine "adequate" standards.

We asked department officials what road sufficiency level is acceptable such that only regular maintenance is necessary. They suggested a level of 60 percent. We then recalculated the allocations based on a standard of 60 percent which could represent an adequate standard. The funding distribution changed considerably. Illustration 9 shows the present allocation and that under an "adequate" standard.

COMPARISON OF "PERFECT" VS "TOLERABLE" PRIMARY FUNDING ALLOCATIONS

| <u>Financial District</u> | <u>Allocation Percent Present System</u> | <u>Allocation Percent 60% Sufficiency</u> | <u>Fiscal 1981-82 \$ Difference *</u> |
|---------------------------|--|---|---------------------------------------|
| 1 | 12.76 | 16.71 | \$2,089,106 |
| 2 | 6.46 | 6.10 | (190,399) |
| 3 | 10.01 | 5.88 | (2,184,306) |
| 4 | 6.33 | 4.94 | (735,154) |
| 5 | 7.15 | 6.73 | (222,133) |
| 6 | 8.67 | 10.46 | 946,709 |
| 7 | 5.22 | 4.70 | (275,022) |
| 8 | 11.33 | 14.29 | 1,565,508 |
| 9 | 5.44 | 5.02 | (222,133) |
| 10 | 8.59 | 7.69 | (475,999) |
| 11 | 8.91 | 10.17 | 666,399 |
| 12 | 9.13 | 7.31 | (962,576) |
| Total | <u>100.00</u> | <u>100.00</u> | <u>\$ -0-</u> |

*Federal and State Funds

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 9

With allocations based on a standard of 60 percent, Financial District 1 would receive \$2 million more, while Financial District 3 would receive \$2 million less. The result is that financial districts with the most critical miles as defined by the department would get more funds and thus more miles of road could be reconstructed in those districts.

Changing the definition of deficient roads to only include those sections which do not meet "adequate" standards would improve the distribution of primary funds. Basing the distribution on the cost of the needed improvements for those deficient sections would be better than basing it solely on deficiency since cost of improvements takes into account the differences in construction costs among areas of the state. The cost of improvements method also considers the differences in cost for various reconstruction needs.

Possible Revisions

All of these concerns point to the need to substantially revise the financial district law as it applies to the primary system. The following are some possible revisions that would improve the distribution of primary funds.

One change could be to decrease the number and increase the size of financial districts. For example, five large districts rather than twelve small ones would minimize several of our concerns. The number five is chosen because it would coincide with the number of commission districts and field regions. This is discussed further in Chapter IV. This change would increase the size of allocations which would reduce splitting of projects, add flexibility

in where money could be spent, and reduce interdistrict coordination problems. This change would also benefit the interstate system for the same reasons.

A logical extension of reducing the number of financial districts would be to prioritize and fund projects on a statewide basis. This would effectively eliminate financial districts and would further reduce our concerns. The department could fund projects where the need is greatest. In addition, projects can be larger and hence have lower percentage of overhead costs. Splitting and delaying projects should be greatly reduced.

Eliminating financial districts for the interstate and primary systems would require the department to develop procedures for analyzing construction needs for these systems throughout the state. These procedures should result in statewide priorities for interstate and primary projects and corresponding fund allocations for the projects.

If the financial district system is retained, the allocation criteria for primary roads should be changed from deficient mileage to cost of improvements needed on deficient roads, similar to the interstate. This would shift funding to the areas with roads in more critical need of repair. Also, variations in cost from area to area and project to project would be taken into account.

RECOMMENDATION #1

WE RECOMMEND THE LEGISLATURE EITHER:

- A. ELIMINATE FINANCIAL DISTRICTS FOR THE INTERSTATE AND PRIMARY SYSTEMS AND ALLOW THE DEPARTMENT TO SET PROJECT PRIORITIES AND ALLOCATE FUNDS ON A STATEWIDE BASIS; OR

- B. REDUCE THE NUMBER OF FINANCIAL DISTRICTS TO FIVE AND BASE PRIMARY ROAD ALLOCATIONS ON COSTS AND DEPARTMENT DEFINED DEFICIENCY STANDARDS.

SECONDARY, URBAN, AND OFF-SYSTEM FUNDING

The secondary, urban, and off-system funding categories are designed to provide assistance to local governments for local roads. Secondary roads are defined as roads which collect traffic and feed into primary or interstate roads or into cities and towns. Roads and streets qualifying for urban funding are those which collect and feed traffic throughout an urban area (over 5,000 population). Off-system roads are local roads which do not qualify as secondary or major urban.

These categories are distinct from the primary and interstate systems in that local officials establish the construction priorities and local governments are responsible for maintenance. Secondary and off-system projects are selected by local county commissioners. Urban projects are selected by local policy committees made up of city and county officials.

As noted previously, the allocation criteria for secondary and off-system are rural population, rural road mileage (excluding primary and interstate roads), land area, and rural taxable valuations. Urban funding is based on urban population.

From our analysis we developed concerns with respect to the system for allocating secondary, urban, and off-system funds. In

addition, we are concerned with the lack of local government participation in funding these projects. The following sections discuss those concerns.

Funding Allocation

The present allocation system has numerous weaknesses. There is a lack of relationship between funding criteria and the need for road projects. The need for roads bears only a remote relationship to any of the factors considered. While rural population would have some bearing on traffic volume, department officials indicate design standards for secondary roads vary little with traffic volume and the repair of roads is more related to the type of traffic and vehicle weight, and not the volume of traffic. On the urban system, traffic volume has more of an affect on design.

Rural road mileage also has little relationship to the need for secondary or off-system funding. The present funding methods do not consider the condition of an area's roads and, at present, the department has no measure of the condition of secondary or off-system roads.

Land area and taxable valuation do not seem to affect need either. For example, one might believe that counties with smaller taxable valuations have fewer resources available for roads. However, some of the smaller counties, from a taxable valuation standpoint, have some of the larger road and bridge balances (i.e., Mineral County's balance exceeds \$760,000 with a budget of \$370,000).

Another concern with the present funding system is the small amount of money allocated. In fiscal year 1981-82, the \$18.4 million available in secondary funds was split 56 ways. For example, a

county such as Wibaux has an allocation of only \$120,000. The \$6.7 million in urban funds were split 15 ways. With these small allocations, projects tend to be split into small parts to fit the available funding or projects are delayed in hopes of accumulating funds. Split projects are smaller and tend to have higher overhead costs as a percentage of construction costs. Delayed projects cost more due to inflation.

A third concern is similar to one expressed earlier with respect to primary roads. The present system ignores differences in construction costs from road to road and area to area.

Also, the two-tiered system of allocations for secondary and off-system funds causes problems for counties. A county may exceed its yearly allocation by 300 percent, while a financial district may only exceed its allocation by 25 percent. This leads to situations in which a county has the necessary allocation but cannot expend the funds because the other counties in the financial district have already overspent their allocations. For example, in Financial District 1, Flathead County has a negative balance of \$890,000 or 150 percent of its allocation. However, the department may not legally allow Lake and Lincoln Counties to spend the \$1.7 million those counties have accumulated in secondary road balances. If the department did allow the \$1.7 million expenditure, the financial district negative balance would be \$890,000 or 37 percent of the district's allocation which would be more than the law allows for negative balance for the district.

Finally, the state has to account for the funds by financial district, county, and city. This leads to coordination problems

with projects which cross county lines. Also, there is limited flexibility in the law for shifting secondary and off-system funds from district to district and county to county. For fiscal 1980-81, we found five counties and two financial districts which had negative secondary balances in excess of statutory limitations. While urban areas have no statutory limits, one has a negative balance in excess of 1,000 percent of its yearly allocation and two others have negative balances of about 300 percent.

Possible Revisions

As noted previously, the financial district law's weaknesses cause splitting or delaying projects, higher costs, and accounting and coordination difficulties. As with the primary system, the solutions to correcting the weaknesses lie in reducing the number of allocations or in deciding on project priorities statewide.

Elimination of financial districts and county distributions for secondary and off-system funds would allow the department to set project priorities and fund these projects on a statewide basis after receiving each local government's priorities. A similar system could be used for urban funds if urban areas were deleted from the law. The department would need to establish procedures for analyzing construction needs for these systems throughout the state to determine statewide priorities and funding requirements. No area allocations would be necessary so cost variations between areas of the state and between projects would not have to be taken into account. In addition, projects could be larger and hence have lower overhead costs. There would also be less splitting and delaying of projects.

If financial districts and urban areas are retained, the financial district law could be revised. If the number of financial districts were reduced and county distributions were eliminated, the size of allocations would increase, which would reduce the splitting and the delaying of projects. There would be added flexibility where money could be spent and there would be reduction in interdistrict coordinating problems and elimination of intercounty coordination problems. In addition, if the financial districts and urban areas are retained, the allocation criteria should be based on a system which considers the condition of local roads and local construction costs.

The federal government is considering combining secondary, urban, and off-system funding into a single local aid funding package. If such a change in federal funding occurs, it may also be beneficial for the state to have common allocation criteria for these programs.

RECOMMENDATION #2

WE RECOMMEND THE LEGISLATURE EITHER:

- A. ELIMINATE FINANCIAL DISTRICTS AND COUNTY DISTRIBUTIONS FOR SECONDARY AND OFF-SYSTEMS FUNDS AND ELIMINATE URBAN AREA DISTRIBUTIONS FOR URBAN FUNDS AND ALLOW THE DEPARTMENT TO SET PROJECT PRIORITIES AND ALLOCATE FUNDS ON A STATEWIDE BASIS; OR

B. FOR SECONDARY, URBAN, AND OFF-SYSTEM PROJECTS, ALLOCATE THE FUNDS TO FIVE FINANCIAL DISTRICTS AND BASE ALLOCATIONS ON COMMON CRITERIA RELATED TO NEED AND COSTS.

Local Effort for Roads

Montana and Nevada are the only two out of twelve western states which match all federal funds for secondary, urban, and off-system projects with state funds. The other states require the local governments to provide some or all of the matching funds.

Requiring local match would give local officials more responsibility over secondary, urban, and off-system projects. The local officials would determine how much they were willing to spend from their own funds. Then, they would determine on which eligible roads they wished to spend the combination of federal, state, and local funds.

We analyzed the finances of the local governments in the state to determine if matching funds would be available. (Appendix C shows our detailed analysis.) The counties seem to have sufficient funds available. The counties have approximately \$26 million in road fund balances, with 45 counties each having balances in excess of \$100,000. Illustration 10 shows that county road fund balances have more than doubled since 1976.

COUNTY ROAD FUND BALANCES

1976 to 1981

| <u>Year</u> | <u>Balance</u> |
|-------------|----------------|
| 1981 | \$25,958,722 |
| 1980 | 22,472,000 |
| 1979 | 19,713,000 |
| 1978 | 19,596,177 |
| 1977 | 15,152,936 |
| 1976 | 12,499,575 |

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 10

These balances are over and above that used for normal maintenance and construction expenditures and could be used to provide some or all of the \$4.5 million in secondary matching funds. City finances were less easy to determine since most cities operate from an all-purpose general fund. However, the 15 cities designated as urban areas receive about \$2.3 million annually in gas tax, with amounts ranging from about \$45,000 to about \$500,000. We also noted that the gas tax distribution statute allows it to be used as matching funds for construction.

Department officials informed us that the federal government is considering requiring 50 percent state matching funds rather than the 25 percent state match now required. If such a law were passed, a local match requirement would reduce the drain on the state highway fund.

We believe the financial district law should be revised to require some percentage of local government matching funds for secondary, urban, and off-system projects. Federal funds could then be at least partially matched with local funds, with any remaining match coming from state funds. This could also give local officials more responsibility for the funds.

RECOMMENDATION #3

WE RECOMMEND THE LEGISLATURE REVISE THE FINANCIAL DISTRICT LAW TO REQUIRE SOME PERCENTAGE OF LOCAL GOVERNMENT MATCHING FUNDS FOR SECONDARY, URBAN, AND OFF-SYSTEM PROJECTS.

CHAPTER IV

DEPARTMENT ORGANIZATION

The department is organized into seven divisions, including Engineering, Program Development, Maintenance and Equipment, Gross Vehicle Weight, Personnel, Legal, and Centralized Services. Our review of the department's organization focused primarily on the Engineering Division.

While we were reviewing the organizational structure, the department was conducting its own review. They implemented two major changes which satisfied some of our concerns. First, they consolidated several planning functions which were spread throughout the organization into a Program Development Division. The department also consolidated the Maintenance and Equipment Divisions because the Equipment Division was primarily a service function for the Maintenance Division.

The department has made some other organizational changes since the time of our audit. The following sections detail our concerns and suggestions for improvements in the organization of the department. We indicate at the end of the appropriate sections if the department has already made the recommended change.

REGIONAL MANAGERS

At the time of the audit, the department had 11 field construction supervisors, 11 field maintenance chiefs, 11 field business managers, 5 field right-of-way supervisors, and 11 field materials supervisors. However, there was no one person in each office to speak for the department. Each functional manager was responsible for his own operations and each reported to a separate supervisor in Helena.

This organizational structure resulted in no one person being in charge of a regional office. Coordination decisions were referred to Helena. Even in Helena, decisions had to be referred through two or three management levels to reach someone with sufficient authority. Another disadvantage to this field organization is that the public could not go to one person to find answers to their questions or complaints.

Generally accepted management principles indicate that an organization as geographically dispersed as the department should have regional managers in charge of all functions within the region. The department has studied this concept and created positions for five district engineers who have authority over all field operations.

RECOMMENDATION #4

WE RECOMMEND THE DEPARTMENT PLACE A SINGLE PERSON IN CHARGE OF ALL FUNCTIONS IN EACH REGIONAL OFFICE.

REPORTING RELATIONSHIPS

The department's reporting structure has to change under the new regional manager system. Under the prior system, the field functional managers reported to Helena functional supervisors. With a regional manager system, some additional organizational changes are necessary to preserve the management concept that each person should have only one supervisor.

The regional managers could report to the functional managers in Helena. However, this would cause confusion about which Helena functional manager's instructions to obey and what priority

to give each. For example, if special projects are assigned by Maintenance, Construction, and Right-of-Way, which project gets priority?

A second alternative would be to have the regional managers report to one of Helena's functional managers. This would pose other organizational problems. For example, if the regional managers reported to the Engineering Division administrator, the Maintenance Division and Centralized Services Division would have to channel instructions through the Engineering Division. This would cause internal conflict because the Maintenance and Centralized Services Divisions would be subordinate to the Engineering Division.

The most realistic alternative is to have the regional managers report to someone outside of the present functional divisions. The department agrees with this alternative and has the district engineers reporting to the deputy director. This alternative requires a change in the present role of headquarters functional divisions. Since these divisions no longer have control over field personnel, their emphasis must shift to planning, formulating policy alternatives, and monitoring implementation of policy.

RECOMMENDATION #5

WE RECOMMEND THE DEPARTMENT ESTABLISH A SUPERVISOR FOR THE REGIONAL MANAGERS OUTSIDE THE PRESENT FUNCTIONAL DIVISIONS.

REDUCTION IN REGIONS

Maintaining eleven construction and maintenance regions is not practical. It would be difficult for the supervisor of the regional managers to effectively supervise eleven regional managers. Management studies indicate that five to ten people is the optimal number to supervise. In addition, the studies indicate with complex functions a number closer to five would be better.

Also, having more than five regions would cause some problems with field right-of-way. Such a system would require the field right-of-way supervisor to report to more than one regional manager.

We believe that the department should reduce its number of field regions to five. This would make the regional manager supervisor's job easier and would not cause multiple reporting relationships for field right-of-way supervisors. The department established five field regions after receiving approval for the proposal from the Governor.

RECOMMENDATION #6

WE RECOMMEND THE DEPARTMENT REDUCE ITS NUMBER OF FIELD REGIONS TO FIVE.

REALIGNMENT OF DISTRICTS

During the time of the audit, the department had different geographic districts for most of its operations. There were five highway commissioner districts, twelve financial districts, eleven construction districts, eleven maintenance districts, five gross

vehicle weight districts (GVW), and five right-of-way districts with none having the same boundaries. Illustration 11 shows the Highway Commissioner and Financial District Boundaries, while Illustration 12 shows the construction, maintenance, right-of-way, and GVW boundaries. Notice that for many areas of the state the construction, maintenance, and GVW boundaries did not coincide resulting in overlapping authority.

HIGHWAY COMMISSIONER AND FINANCIAL DISTRICTS

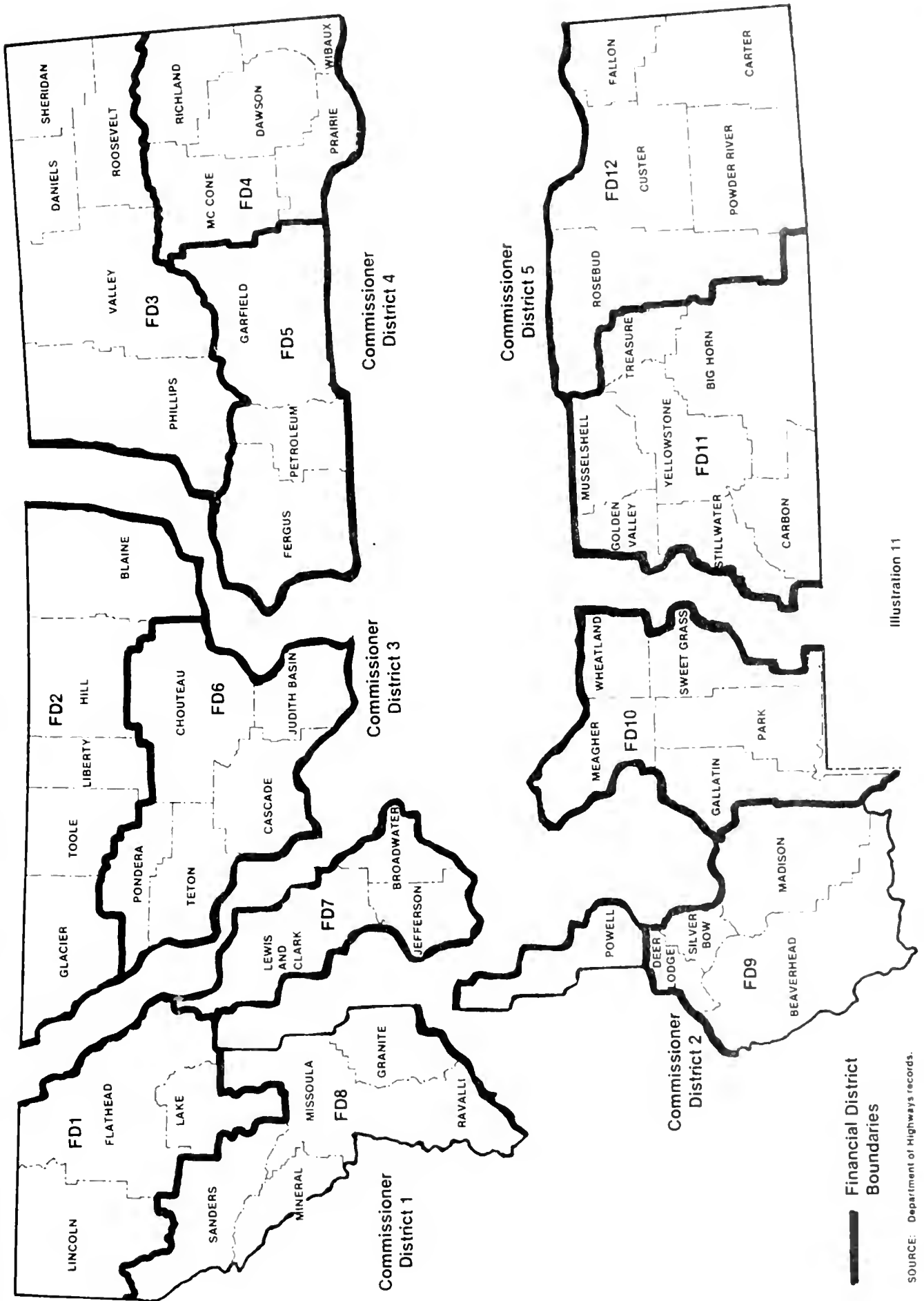
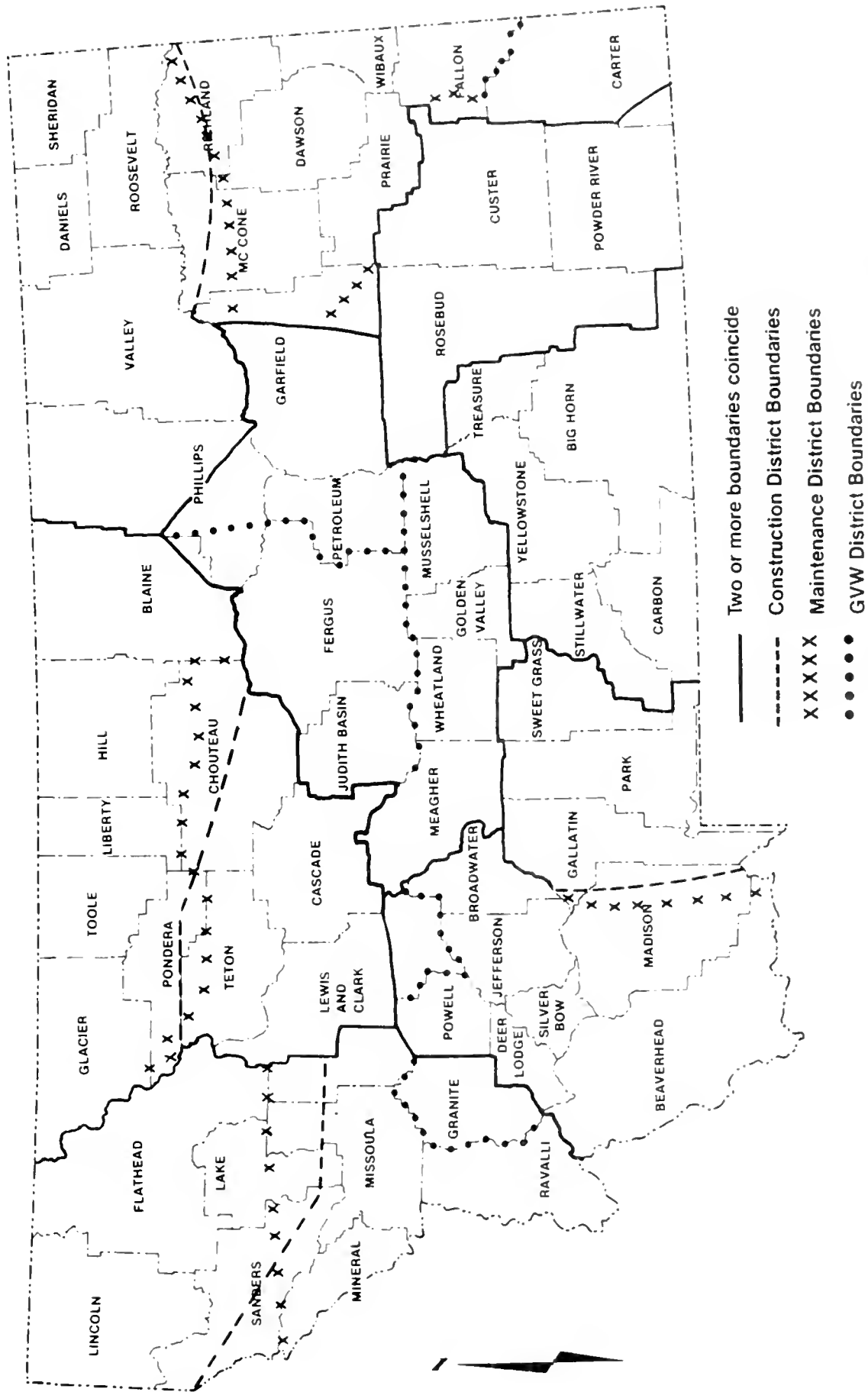


Illustration 11

CONSTRUCTION, MAINTENANCE, RIGHT-OF-WAY, AND GWV DISTRICTS



SOURCE: Department of Highways records

(Right-of-Way districts coincide with one or more other districts.)

Illustration 12

The regional manager concept requires that construction, maintenance, and right-of-way districts be the same. Otherwise, there is confusion over who has authority over a given function in a given area. Realigning the GVW districts would simply make everything compatible. The department performed this realignment when the five field regions were established.

Highway Commissioners are appointed from districts theoretically, at least, to represent the interests in those districts. However, the commissioner districts do not align with any other of the districting schemes. Common alignments for commissioner districts and department regions would establish a communication link so that a commissioner knows who to contact if a person in his area has a problem. Only the Legislature can change the commissioner districts.

Common alignments between department regions and financial districts is important. This would tie financing of roads in an area with the construction of roads. Under the current system a project in a financial district may span two construction districts. This can lead to coordination problems and conflicts over which construction district has responsibility. Financial district changes require legislative action. In Chapter III we recommended that if financial districts are maintained that the number be reduced to five. Therefore, if financial districts are retained, this reduction should allow for common alignment with commissioner districts and department regions. If financial districts are eliminated, no legislative changes are necessary unless commissioner districts are changed.

We believe that if financial districts are retained, the Legislature should establish common boundaries for commissioner districts and financial districts. The department should then use the same boundaries as much as possible for its regions.

RECOMMENDATION #7

WE RECOMMEND:

- A. THE LEGISLATURE ESTABLISH COMMON BOUNDARIES FOR COMMISSION DISTRICTS AND FINANCIAL DISTRICTS IF FINANCIAL DISTRICTS ARE RETAINED.
- B. THE DEPARTMENT GENERALLY USE THE SAME BOUNDARIES AS SET BY THE LEGISLATURE FOR THE ABOVE DISTRICTS, FOR THEIR CONSTRUCTION, MAINTENANCE, RIGHT-OF-WAY, AND GVW DISTRICTS.

PRECONSTRUCTION PROJECT MANAGEMENT

During our review, we studied the management of preconstruction projects. We found that a project passes through many hands during its development and processing through the various preconstruction procedures. The Engineering Division Administrator has authority over most of the process, but it is extremely difficult to keep track of all the projects in the preconstruction process at one time.

The Preconstruction Bureau manages the location selection and design processes. Road projects are assigned to one of five area engineers who prepare impact statements, recommend corridors, and supervise road design. The area engineers require the services

of specialty groups such as the hydraulics, surfacing, traffic, and environmental units of the Preconstruction Bureau. Additionally, the Road Design Section needs coordinating information from the Materials and Right-of-Way Bureaus. The area engineers do not have authority over the other units in the Preconstruction Bureau or units in other bureaus. The area engineers must request cooperation from the other units or pass problems through two or three management levels in the organization to get solutions.

The Bridge Bureau designs the bridges and other structures for construction projects. Sometimes bridges are separate projects, but often they are part of more comprehensive road projects. The Bridge Bureau requires the services of the Materials Bureau and the Hydraulics Unit but they have no control over those activities. Also, they must coordinate bridge design with the road designers in the Preconstruction Bureau.

The Right-of-Way Bureau acquires necessary land for the project, coordinates utility and railroad relocations, and provides input into the location selection process. They depend on the plans from Bridge and Preconstruction to know how much property to acquire and what utility and railroad lines need moving. They also depend on services of the Legal Division for condemnation proceedings.

The present system of preconstruction management may result in delays for some projects as they are processed through the various bureaus and specialty units. One indication of this is that some projects do not meet preconstruction deadlines. Also, preconstruction may not be completed as inexpensively as possible since no one is responsible for monitoring costs.

One alternative to the present system, used by some engineering organizations, is project management. Under such a system, a project manager is assigned to manage one or more projects. That manager is given a budget and deadline for completing the project. Thus he becomes the advocate for his projects. A project manager system could increase efficiency, decrease costs, and serve as a good training ground for general managers. However, there may be some organizational stress because the functional managers have less authority and responsibility.

We believe the department should study this alternative as a way of improving preconstruction efficiency. A project manager system would not require an increase in personnel but rather an upgrading of the area engineers' positions. We discussed the idea with department officials and they indicated it may be tried for some of the larger, more comprehensive projects.

RECOMMENDATION #8

WE RECOMMEND THE DEPARTMENT STUDY A PROJECT
MANAGER SYSTEM FOR PRECONSTRUCTION PROJECTS.

PRECONSTRUCTION ORGANIZATION

As part of its reorganization effort, the department is considering decentralizing many of the preconstruction activities. These activities would be conducted by the personnel located in each regional office. Because of our concerns and concerns expressed by some department personnel, we studied the question of centralization or decentralization of preconstruction activities.

Part of our review was an examination of the degree of centralization necessary for location selection, environmental assessment, and design. We also examined the degree of centralization required for right-of-way acquisition. The following sections discuss these two issues.

Location Selection, Environmental Assessment, and Design

Currently, location selection, environmental assessment, and design are centralized to a great degree in Helena. The field offices perform ground surveys, design some relatively minor projects, and assess the accuracy of plans prepared in Helena. However, the vast majority of work is performed in Helena.

The department is considering the possibility of decentralizing more of these functions. One possibility mentioned would move most of the location selection and design to the field. The engineering specialties (hydraulics, environmental, surfacing, and traffic) and bridge design would remain centralized in Helena. The major benefits of this change would be to get the design closer to the project site and to involve more construction personnel in design. However, we believe such a reorganization could cause several problems which are discussed below.

There could be a lack of standardization in designs. Headquarters personnel reported that the present designs done in the field require revisions to bring them in line with standards. Decentralizing design could compound this lack of standardization. The alternative is to increase checking of designs for consistency which would increase costs. Also, there would be additional delays in design as plans are returned to the field for revisions.

Another concern relates to the lines of communication. With bridge design in Helena and road design in the field, there is the potential for delays and mistakes caused by longer lines of communication and by less opportunity for direct contact. Having the engineering specialities separate from road design could also mean delays. Road designers would no longer be able to walk down the hall to get their questions answered.

Finally, there will be few construction personnel with the time or expertise to perform design. Our discussions with department field personnel indicate that only the field project managers and a few top inspectors would have the expertise to assist with design. However, these same people are the keys to managing construction projects and would be required to spend most of their time on their construction duties.

There also would be problems if all location selection, environmental assessment, and design were decentralized. There would probably not be enough work to keep the engineering specialities and bridge designers busy. Decentralizing photogrammetry, the major surveying method, would increase costs because there would be aircraft and expensive machinery in five offices, not just Helena. Decentralizing environmental assessment would require significant travel since the experts in other state agencies used by the department are headquartered in Helena. Decentralized bridge design would be less efficient since computer costs would increase because of the need to access the central computer.

Recently the department reduced the number of active preconstruction projects due to fiscal constraints. With this reduction in

preconstruction work, the preconstruction workload will be less. With less work, a decentralized structure would have difficulty keeping people busy in their local area. The alternative of assigning design work from other areas would not be any more beneficial than having the designers in Helena.

In addition, we noted that Nevada recently centralized its design activities. The move was made to reduce the number of personnel needed, to provide more standard designs, and to reduce operating costs.

To summarize, our analysis indicates partial decentralization would only accrue limited benefits and would have standardization and communications repercussions. Total decentralization would result in less efficient use of personnel and equipment and increased costs. The reduction in workload also would make efficient use of personnel difficult under a decentralized system. Therefore, we believe the department should retain its present centralized system for location selection, environmental assessment, and design activities.

RECOMMENDATION #9

WE RECOMMEND THE DEPARTMENT RETAIN ITS PRESENT CENTRALIZED SYSTEM FOR LOCATION SELECTION, ENVIRONMENTAL ASSESSMENT, AND DESIGN ACTIVITIES.

Right-of-Way

Much of the department's right-of-way acquisition, right-of-way management, and outdoor advertising regulation functions are decentralized in five regional offices. Each office has a right-of-way supervisor who reports to the Right-of-Way bureau chief in

Helena. In addition, each office has several right-of-way agents who report to the right-of-way supervisor and who perform the actual appraisals, negotiations, and other work.

Each office also is assigned a review appraiser. The review appraiser reviews the work of the right-of-way agents and reports to the head of the appraisal section in Helena. The review appraisers serve as a check to assure that right-of-way appraisal standards are followed.

Our audit work and discussions with the FHWA personnel in Helena raised the question of whether right-of-way should be decentralized. An FHWA official noted that South Dakota and Utah have centralized their land acquisition functions and that centralization may be more efficient.

We contacted South Dakota and Utah about their centralized systems. Each acquires 200 to 300 right-of-way parcels per year. Each employs about a dozen right-of-way agents and supervisors to handle property acquisition. In contrast, Montana acquires 300 to 350 parcels per year with a staff of 39, including 5 field supervisors, 4 review appraisers, 20 right-of-way agents, 5 secretaries, and 5 headquarters personnel.

There has been a decrease in new construction and hence a reduced need for right-of-way acquisition. With less work to be performed in the field, there probably will be insufficient appraisal work to justify a review appraiser in each office. Centralizing review appraisal could mean a reduction in personnel and thereby a cost savings.

Our discussions with department officials indicate that land acquisition is going to be a smaller operation, due to the decrease in the number of projects and the shift in emphasis from constructing new roads to reconstructing existing ones. Workload in one office has decreased to the point that most of the acquisition work by its agents is for other offices. In the future, other offices may face the same situation. Again, the solution may be to centralize right-of-way acquisition. Centralization could lead to staff reductions and more effective use of staff. The major cost would be of travel to outlying areas of the state which should be outweighed by staff savings.

We discussed the concept of centralizing land acquisition with the Right-of-Way bureau chief. He noted that prior to the beginning of the interstate program in 1958, land acquisition was centralized. He stated that centralization may be feasible but that one agent may be needed in each region to manage the department's land and to regulate outdoor advertisement.

The favorable experiences of South Dakota and Utah and the decrease in workload indicate that centralization of right-of-way acquisition may be appropriate for Montana. We believe the department should include this as an option to be examined during its reorganization efforts.

RECOMMENDATION #10

WE RECOMMEND THE DEPARTMENT STUDY CENTRALIZING
RIGHT-OF-WAY ACQUISITION.

CHAPTER V

HIGHWAY COMMISSION

The Highway Commission consists of five members appointed by the Governor and confirmed by the Senate. Each member must be a resident from one of the five districts of the state (see the map on page 43). Each member is entitled to \$25 compensation for each day on official business plus the travel expenses ordinarily provided by the state. The commission is required by law to meet at least once each month for the purpose of transacting business.

The commission is designated as a quasi-judicial board and is allocated to the department for administrative purposes only. This means the department provides administrative support to the commission, but the commission is autonomous in its decision-making functions.

COMMISSION LAW

Prior to Executive Reorganization in 1971, the commission had almost total authority over Montana's highways, the Highway Department, and related areas. The commission appointed the state highway engineer and had authority to hire department personnel and fix their compensation. The general powers of the commission were specified as the planning, laying out, altering, constructing, reconstructing, improving, repairing, maintaining, and abandoning federal-aid and state highways.

Executive Reorganization created the present Department of Highways and the director's position. Duties and powers were set forth for department heads, except the duties and powers of the director of the Highway Department were subject to the concurrence of the commission.

In 1974, commission authority was removed from many sections of the law and given to the department. The requirement that the commission concur in the duties granted to the department director was deleted. There have been no major changes in the law effecting the commission since 1974.

Presently, the major powers of the commission are the designation and abandonment of federal-aid and state highways, and the awarding of all contracts on federal-aid and state highways. The major powers of the department are now the planning, laying out, altering, reconstructing, improving, repairing, and maintaining state and federal-aid highways.

During our review, we developed a concern with the commission's authority and subsequent role as a state agency. The following section discusses that concern.

COMMISSION ROLE

Commission Actions

One way of analyzing the commission's role is by reviewing the actions it takes, and the information it receives, as shown by its meeting minutes. We reviewed the commission's meeting minutes for fiscal years 1979-80 and 1980-81. In addition, we attended several commission meetings that were held during our audit.

A major part of the commission's business is related to the requirement that the commission award all contracts for work on state and federal-aid highways. Department officials stated this is one reason the department involves the commission in the various steps of the preconstruction process. The commission's minutes show the commission acting on the following preconstruction steps:

- Adding projects to the five-year plan.
- Selecting the preferred alternative for road location and design.
- Placing projects on the bidletting list and setting the letting dates.
- Awarding contracts to the low bidder.

The commission's minutes for fiscal years 1979-80 and 1980-81 show that the commission almost always concurs with the department's recommendations for the various preconstruction phases, with some decisions occasionally tabled.

The commission takes action in two areas related to road construction. The commission approves major work orders because they are considered as amendments to original contracts. The commission issues certificates of completion for projects that have been finalized. This is because of the requirement that a contract is not completed until all work has been accepted by the commission. Commission minutes for fiscal years 1979-80 and 1980-81 show the commission always accepted the department's recommendations in these two areas.

There are three additional areas where the commission is required by law to take official action that appear in the meeting minutes. These areas are:

- Setting of speed limits.
- Designating roads as to whether they are secondary, primary, controlled-access, etc.
- Determining if an item of outdoor advertising is unlawful.

The meeting minutes show the commission generally accepts the department's recommendations for these areas.

Commission approval of department recommendations was discussed at their March 31, 1982 meeting. Commission members noted they have little control over the department's recommendations and have little choice but to accept the recommendations. Department officials stated they try to take the commission's views into consideration when they present their recommendations, which may be one reason the commission almost always accepts the department's recommendations.

In addition to commission business previously discussed, the department prepares presentations for most meetings on at least three areas that do not require action by the commission. The commission is notified of all contractors in overtime status on active contracts. These contractors cannot bid on contracts that are up for bid. The commission is notified of the status of any outstanding claims that contractors have filed against the department. Finally, the department often uses the commission as a sounding board to get their ideas on such things as policy changes or new systems.

Another area that does not require specific commission action is when the commission hears testimony from groups or delegations representing local governments. These people often come to commission meetings seeking such things as changes in project priorities, changes in designations of roads, or additions to the state maintenance system. The commission acts primarily in an advisory capacity for matters on which it is not required to take action.

Section 60-2-101, MCA, requires the commission to meet at least once each month for the purpose of transacting business. To

satisfy this requirement, the commission often meets for a two-day meeting on the last day of one month and the first day of the next month. The commission does not appear to have sufficient business to require monthly meetings.

Minor Authorities

The role of the commission is further confused because the commission has authority over some areas that are not directly related to highways. These areas include:

- Section 60-3-304, MCA, which requires the commission to provide technical assistance and advice to cities and counties on the Montana Footpath and Bicycle Trail Act of 1975.
- Section 61-3-712(6), MCA, which requires the commission to make the final determination on the proper place of registration of a motor vehicle in case of doubt or dispute.
- Section 61-9-228, MCA, which requires the commission to adopt standards for lights on snow removal equipment operated on the highways of this state.
- Section 61-10-143, MCA, which gives the commission responsibility for hearing and determining whether to revoke, cancel, or suspend a special gross vehicle weight permit that has been confiscated by the department.

Since these laws are not related to the major powers of the commission, it may be more appropriate for other agencies to administer them. These laws appear to be holdovers from when the commission had total authority over highways and related areas. Commission meeting minutes do not show any action by the commission for these areas.

Other Agencies

Another way of analyzing the role of the commission is to compare the statutory powers of similar boards and commissions with the Highway Commission. We made this comparison with the

Fish and Game Commission, the Board of Health and Environmental Sciences, the Board of Livestock, the Board of Natural Resources and Conservation, the Public Service Commission, and the State Board of Land Commissioners. Only the Highway Commission does not have a statutorily specified role. All the other boards are in either a supervisory, policy-setting, or advisory capacity to their departments.

Legislative Concern

The 1981 Legislature questioned the role of the commission in HJR 56. The resolution stated "the dual role of the Department and the Highway Commission in planning and letting bids on projects allows each entity to shield the other from criticism so that no strict public accountability exists. . ."

The department attempted to clarify the roles of both the commission and the department in a memorandum of understanding that was presented to the commission in June 1981. The memorandum stated there was a need to clarify the duties and responsibilities of both the commission and the department and that their duties and responsibilities overlap in some areas. The memorandum further stated that the department has requested the commission to take or approve action on certain subjects that did not necessarily require their approval. The commission tabled the issue and it was not brought up again during our audit.

To summarize, our review of the commission's meetings for fiscal years 1979-80 and 1980-81 showed little constructive action by the commission. Generally, the commission has just accepted recommendations prepared by the department. Commission members

have noted they have little control over department recommendations and have little choice but to accept the recommendations.

The commission acts in an advisory capacity to the department for some areas in which it is not required to take action. While in other areas, where the commission has responsibility, the meeting minutes do not show any commission action or deliberation.

Finally, the role of the commission has been questioned by both the Legislature and the department. These questions may have arisen because the commission does not have a statutorily defined role as do similar state boards and commissions.

In light of all of the above, the Legislature should examine the desired role for the commission. The Legislature should decide if it wants to keep the commission as a quasi-judicial agency, to make it strictly advisory, or to terminate it. If the commission is to be retained as a quasi-judicial agency, the Legislature should set forth meaningful duties and responsibilities for the commission. If the Legislature decides that the commission should be advisory, it has two options under state law. The Legislature may specifically create advisory councils in the statutes, such as those for air pollution control, water pollution control, and fire training. It also has the option of deleting reference to the commission from the statutes. In this case, the Governor and the department director have the authority to create a highway advisory council if they believe a council is necessary. If the Legislature determines the commission is no longer necessary the commission should be terminated. We discussed the role of the commission with department officials and they suggest the commission be retained and be given meaningful duties.

RECOMMENDATION #11

WE RECOMMEND THE LEGISLATURE DO ONE OF THE FOLLOWING:

- A. RETAIN THE COMMISSION AS A QUASI-JUDICIAL AGENCY AND SET FORTH MEANINGFUL DUTIES AND RESPONSIBILITIES FOR THE COMMISSION; OR
- B. MAKE THE COMMISSION ADVISORY BY STATUTE; OR
- C. TERMINATE THE COMMISSION.

CHAPTER VI

PRECONSTRUCTION PLANNING

In Chapter II we explained how the preconstruction and construction processes can be broken down into six major steps. This chapter covers the first three of those steps:

- Project control;
- Location selection and environmental assessment; and
- Design.

PROJECT CONTROL

Project control involves:

- determining state construction needs;
- predicting available income;
- selecting projects and setting their priorities;
- scheduling the projects selected; and
- monitoring the projects through the preconstruction process.

Determining the construction needs cannot be done entirely as a separate step. Assessing needs involves aspects of predicting income, selecting and setting project priorities, and scheduling projects. Therefore these steps will be discussed concurrently, followed by a section on project monitoring.

Construction Needs Assessment

A needs assessment is an important management tool. It provides the basis for an internal examination of what projects need to be accomplished in a given period of time. In addition, the assessment requires the department to plan and determine the resources required to perform the needed work. For external bodies, such as the Legislature, a needs assessment provides a framework for decisions on funding levels.

We found the department had not performed a needs assessment since 1974. At that time, they had assessed the repair and reconstruction needs for the primary system and determined an approximate cost to undertake those projects.

The estimates since 1974 have not been based on in-depth analysis. Since that time, the department has estimated primary system construction needs by multiplying the number of miles of road needing work by an average cost per mile. There has been little definition of criteria for assessing which roads need work. In addition, the average cost figures did not consider cost variation between areas of the state or types of projects. The cost figures did not address inflation in construction costs.

Based on our work and a similar legislative review in Virginia, we view the needs assessment as a planning process by the department. The following are the steps which should be in the process:

1. The department should identify what criteria it will use to select projects.
2. Once the criteria are selected, projects which meet those criteria can be identified. Projects which do not meet the criteria are "not needed" and therefore dropped from further consideration.
3. The department should set priorities for the projects. If projects must be delayed or resources reallocated, the department knows which projects will be affected.
4. The department should identify when the projects can be ready for construction. Some overlay jobs can be ready within two years while a major construction job may take seven years. This also requires an assessment of preconstruction resources. Some projects which ideally could be ready in two years may realistically not be ready for three or four because there is not sufficient preconstruction staff. The priorities set in step 3 can help identify which projects to delay. An alternative to delay is to identify what additional preconstruction resources are needed to have the project ready.

5. When project priorities are set and projects are scheduled for a given year, costs must be assigned. These costs should be reasonably accurate. To have accurate costs, the scope of each project should be defined in some detail. For example, a four inch overlay is nearly twice as expensive as a two inch overlay. Also, the costs for each project should be based on the type of work and the location of the project. A statewide average is not sufficient. The estimate of cost for each project should include inflation in construction costs.
6. Additional useful information is an estimate of the revenues of the department. This information when combined with the cost data will explain what extra revenue is needed and what projects will be delayed if the revenue is not provided.

The department is currently working on the implementation of some of the above mentioned steps to develop a needs assessment. Department efforts are discussed below.

Selecting and Setting Project Priorities

The department must select projects and set their priorities to effectively use available funding and planning resources. Prior to fiscal year 1981-82, the Department of Highways lacked a formal documented system of selection and prioritization of construction projects. Projects were selected based on needs and public interest, but no formal ranking of project priority was performed. Because of the lack of a formal priority ranking, when federal funding levels changed, the department would evaluate each project to determine which should be held for later letting or which should be accelerated for an earlier letting.

In fiscal year 1981-82, the department began development of documentation procedures for selecting projects and setting their priorities. These procedures rank project need based on a quantitative system. Public interest and available funding can then be

taken into consideration to rank projects in order of priority. This new system was presented to the Highway Commission in draft form in March 1982. Since the system was not in use during our audit we were not able to evaluate it.

Project Scheduling

Project scheduling involves establishment of time periods in which certain project phases will be performed. Completion of all the project phases will lead to letting of the construction contract. Accurate scheduling is necessary for highway construction projects to flow smoothly through the preconstruction process.

Prior to fiscal year 1981-82, project bid letting dates were established based on the availability of funds. Standard times were used to determine the starting date and target date for preconstruction phases. Schedules were graphically displayed on schedule boards which were photographed monthly. Schedules were limited to broad phases. It was left to department managers to schedule activities necessary to complete each phase.

A major weakness in the schedule board system was the use of standard times for the broad phases which varied little from project to project. Standard times did not always take into consideration factors such as length, terrain, or number of structures which affect the length of time needed for preconstruction.

Our analysis indicates that long lead times are needed to complete the preconstruction process. However, the use of the schedule boards may have exaggerated the time needed. While actual data is not available to evaluate this premise, our interviews with department officials indicate that inaccuracies in the standard

times led them to plan on seven years for preconstruction. This seven year time span was a concern of the 1981 Legislature.

During fiscal year 1981-1982, the department began implementation of the manpower and project scheduling system (MAPSS), designed by the New Mexico Department of Highways. MAPSS was designed specifically for the scheduling of highway construction projects. It also has some capabilities for cash forecasting. MAPSS establishes schedules for project tasks or activities. MAPSS has approximately 150 activities defined in the preconstruction process. The system schedules the time frame for each activity and schedules a work crew to perform the activity. Projects are scheduled for both manhours and duration, with primary emphasis on duration.

The MAPSS system is expected to be in operation sometime during fiscal year 1982-83. We were not able to evaluate the system, but based on our analysis of what the system is designed to do, we conclude it should help the department effectively schedule projects.

Income Prediction

Funding for highway construction comes from two primary sources, federal assistance and state funding sources. Accurate predictions of available funding are necessary since funding is a primary consideration of when construction contracts can be let for bid. Federal funding levels have been unpredictable. Authority to obligate federal funds has been withheld or released with little prior notice. Prediction of state funding was not necessary in the past because adequate funds were available to meet federal matching requirements. With possible reductions in federal assistance and more reliance on state funding, it will be more important to

also predict available state funds. Once income has been predicted it can be combined with cost data to determine additional revenue requirements.

Using Needs Assessment

A needs assessment document should explain the criteria for selecting projects, the criteria for seeking project priorities, the method for estimating construction costs, and the method for estimating revenues. It also should list the projects by year and priority with the cost of each. Finally, the revenue estimates, cost estimates, additional revenue necessary, and consequences of the additional revenue not being provided should be listed.

Many of the questions of the 1981 Joint Subcommittee on Highways rested on the issue of how much additional funding the department needs. We believe a needs assessment is the only way those questions can be adequately answered. Department officials agree that a needs assessment is required and will be performing a needs assessment. Since the department had not performed sufficient work on their needs assessment during the audit, we were unable to evaluate their procedures.

An additional concern we have is that the needs assessment not be a one-time process. Waiting eight years between assessments, as the department has, serves neither it nor the legislature. A better approach would be a biennial update which could reflect changing conditions and offer an evaluation by the department of its progress since the previous assessment. An update involves modifying the needs assessment based on changes which have occurred in the last two years.

RECOMMENDATION #12

WE RECOMMEND THE DEPARTMENT:

- A. PREPARE A NEEDS ASSESSMENT.
- B. UPDATE THIS ASSESSMENT BIENNIALLY.

Project Monitoring

Prior to fiscal year 1981-82, the department did not have a comprehensive centralized project monitoring system. The Project Control Unit monitored projects in broad phases as defined by the schedule board and monitoring was limited to the "phase" currently in process. Individual units within the department developed their own monitoring procedures to provide information necessary for the performance of their duties.

The MAPSS system schedules the preconstruction phases of highway projects. In addition, the MAPSS system can monitor projects by analyzing completed activities. When an activity is completed, the completion date is entered into the system. If a target date is reached and the activity is not reported as completed, the project and activity is listed on a late activity report. Since the MAPSS system tracks projects through approximately 150 activities, project status can be accurately determined by monitoring completed activities.

Reports on Staff Hours

Another aspect of project monitoring involves the staffing of the preconstruction stages. In order to determine if department personnel are being used efficiently, it is necessary to monitor how they spend their time. The department did, as part of its old

Manpower Management System, report the number of hours spent on various aspects of the preconstruction process. However, that system was discontinued in favor of the MAPSS system. The department chose not to include data on hours spent during the preconstruction process in the MAPSS system.

Reports on staff time can be useful to management in different ways. We developed some reports on staff time by using the department's payroll files for 1980 and 1981. The department's payroll files currently have uncompiled data on the number of man-hours spent on various department activities for each project. We identified several uses for this payroll information.

This data can be used to check the propriety of time charged to a job. We found that Traffic, Surfacing, and Design were charging time to projects that had already been let for bids. While these charges may have been appropriate, it is conceivable that the person in charge of the project was unaware of any such work on the project. This person should be able to check if there was a miscoding or if some work on the project had been authorized by someone else. This check would be especially important if the department implements a project manager system where project managers are given time budgets and made responsible for meeting the budgets.

The head of preconstruction can check to see that designers are not spending too much time on projects which will not be let until far into the future. For example, we found cases where between 1,000 and 2,000 hours of preconstruction time was spent on projects not on the letting schedule or not scheduled for letting for at least six years.

The Engineering Division Administrator can look for excessive amounts of time charged to general administrative categories. For example, a significant proportion of the time by Contract Plans, Public Hearings, Traffic, and Right-of-Way was charged to administration. Such a finding may indicate that some projects are not being assessed their true charges but are being subsidized by other projects which share in the overhead costs.

These are a few examples of the uses of data on staff hours. In addition, reports such as these could also be used to monitor construction personnel. While it may not be effective to generate these reports biweekly, we believe monthly or quarterly reports would be beneficial to management.

RECOMMENDATION #13

WE RECOMMEND THE DEPARTMENT DEVELOP AND USE REPORTS SHOWING TIME SPENT ON VARIOUS DEPARTMENT ACTIVITIES.

ENVIRONMENTAL ASSESSMENT

An environmental analysis is required, by statute, on every project the Department of Highways proposes to construct. The FHWA must approve the environmental documents before a project can be let for bid. Approval will not be granted if the document is not in compliance with the National Environmental Policy Act.

There are three types of environmental analyses: categorical exclusions, environmental assessments, and environmental impact statements. The project to be constructed dictates the particular

environmental analysis needed. The majority of the projects (about 70 percent) require categorical exclusions. Environmental assessments are required for about 28 percent of the projects, with approximately 2 percent of the projects requiring environmental impact statements.

Categorical Exclusions

Projects such as reconstruction of a bridge on essentially the same alignment, resurfacing an existing highway, safety operations, landscaping, etc., only require a categorical exclusion. These projects do not involve significant environmental impacts or substantial planning, time, or resources. Categorical exclusions will not induce significant foreseeable alterations in land use, planned growth, development patterns, or natural or cultural resources. Projects meeting the criteria for categorical exclusions do not require additional environmental documentation.

Environmental Assessments

Actions in which the significance of the impact on the environment is not clearly established require an environmental assessment (EA). When a public hearing concerning the location and design of the project is required, the EA is prepared in advance of the notice of the public hearing. A public hearing is held on any federal-aid project which requires the acquisition of significant amounts of right-of-way; substantially changes the layout or purpose of connecting roadways or the facility being improved; has a significant adverse impact on abutting real property; or otherwise has a significant social, economic, environmental, or other effect.

The FHWA will determine, after review of the EA, and any comments received concerning the EA, whether to issue a separate written "finding of no significant impact," or to require an environmental impact statement.

Environmental Impact Statements

Projects which will have a significant impact on the environment require an environmental impact statement (EIS). These types of projects include a new controlled access freeway, those causing a major shift in travel patterns, and those causing displacement of a large number of individuals or businesses. If significant environmental impact is obvious, then the EA process can be bypassed. An example would be if a new highway were being constructed and there were several alternative locations to consider.

A draft environmental impact statement is prepared by the department. After approval by the FHWA, the draft is circulated to the public and interested state and federal agencies for comments.

After circulation of the draft EIS and consideration of the comments received, a final EIS is prepared by the department. The final EIS identifies the preferred alternative, discusses related comments received on the draft EIS and all reasonable alternatives considered, and summarizes citizen involvement. The final environmental impact statement is made available for public review after approval of the FHWA.

Areas of Concern

The 1981 Legislature expressed concern that the number of environmental impact statements required each year slowed the preconstruction process; that federal regulations concerning environmental analyses created unnecessary problems for the department; and there was excessive use of consultants. The audit did not reveal problems in these areas. We did develop a concern related to the standardized preparation and presentation of environmental analyses.

In reviewing other agencies' procedures for writing environmental analyses, we found that most of the agencies had a checklist for what to consider in an EA and a format outline that detailed how the EA should be organized. The Department of Highways patterns EAs after previously written EAs. A federal outline obtained from a course taken by one of the department employees is also used when an EA is written. There are no guidelines for categorical exclusions except previously written statements.

The area engineers have the responsibility of writing all the necessary environmental documents. Standardization is difficult with several people writing environmental documents and with little guidance on content and format. Checklists of what to consider in categorical exclusions, EAs, and EISs should be developed by the department. Formats for the organization of the analyses should also be developed. The checklists and formats would provide the writers of the analyses a common reference point from which to begin and would assure uniformity in the statements.

RECOMMENDATION #14

WE RECOMMEND THE DEPARTMENT ESTABLISH A CHECKLIST FOR ITEMS TO BE CONSIDERED IN THE ENVIRONMENTAL ANALYSES AND AN OUTLINE OF THE FORMAT THE ANALYSES SHOULD FOLLOW.

DESIGN

Once a general road alignment has been approved, the design phase of the process begins. The Preconstruction Bureau is responsible for all road designs. The Location and Road Design Section designs the majority of the highways in Montana; however, some design work is done by consultants through the Consultant Design Section and some by design personnel assigned to the various field divisions. The determination of who will do the design is primarily the responsibility of the chief of the Preconstruction Bureau.

If a road design is to be done by division personnel or by designers in the Location and Road Design Section, an area engineer is assigned the responsibility of overall development of the road design. If the road is to be designed by a consultant, the Consultant Design Section is responsible for monitoring the development of the design. All structures are designed by the Bridge Bureau.

The road designs, regardless of where they are assigned, rely on survey data submitted by photogrammetry and Construction Bureau survey crews. From this data, the designers develop detailed drawings indicating what construction activity is necessary and specifications for materials to be used. To assure uniformity,

all department design personnel utilize a design manual. The standards in the manual are in accordance with those developed by the American Association of State Highway and Transportation Officials (AASHTO). The FHWA also utilizes AASHTO standards when they are considering approval of department designs.

The designers receive technical input from specialists in the Hydraulics Unit, Surfacing Unit, Traffic Unit, and Geology Section. The designers also receive feedback from the Construction Bureau on past designs when design errors have been identified. During the course of the design, the plans are reviewed on-site by various personnel from the Construction, Bridge, Materials, and Preconstruction Bureaus. The design is presented at a public hearing to obtain comments and suggestions from landowners and other people interested in the road design. The proposed design must also go through several stages of internal review and approval before it is submitted to the Contract Plans Section.

During the course of the audit we developed concerns in the following areas:

- Designer training;
- Location survey;
- Automation of design functions;
- Hydraulic Unit design; and
- Consultant selection and evaluation.

These concerns are discussed in the following sections.

Designer Training

The design of highways is accomplished by crews at both the division and headquarters level. The area engineer in charge of

the overall process assigns projects to individuals of his design crew on the basis of availability and experience. Design crews consist of a design supervisor, designers, and design technicians.

The primary method of training personnel to design highways is on-the-job training. The design supervisor is in charge of on-the-job training for his crew. The department also provides some training by sending senior personnel (area engineers and design supervisors) to courses sponsored by the FHWA. The department relies on these individuals to pass whatever knowledge they gather from these courses on to the lower level design personnel. There are no formal training classes for entry level design personnel.

Interviews with designers and the design checkers who review all design plans indicate that more training is needed. The design checkers are highly experienced individuals who are responsible for checking the designs submitted to them by design personnel. The checkers believe that more training is needed in the areas of mathematics and fundamental design procedures. Preconstruction officials do not feel there is a lack of training in any specific areas; however, there is a class planned for lower level design personnel sometime in 1982.

Training of personnel is a key element in developing a work atmosphere which will contribute to an efficient work product. The training of designers should begin when personnel start working and continue throughout the different levels. The department should not rely totally on the undemonstrated teaching ability of experienced designers to train inexperienced design personnel in the fundamentals of road design.

RECOMMENDATION #15

WE RECOMMEND THE DEPARTMENT IMPLEMENT A FORMAL IN-HOUSE TRAINING PROGRAM WHICH INCLUDES ALL DESIGN PERSONNEL.

Location Survey

All department design personnel rely on location survey data which are submitted by photogrammetry and Construction Bureau survey crews. Interviews with members of design crews revealed that various technical data needed to create a design is often missing or insufficient in detail. An example of this missing data is the information needed by personnel in the Hydraulics Unit who must have specific data on water courses and their relation to the proposed roadbed.

Survey deficiencies delay the design process while a field survey crew gathers the missing data. The response time of the crew depends upon when the request is made. If the request is made during the construction season (April to November), the design data may have to wait until the construction season is over because the survey crews are fulfilling construction-oriented tasks. The survey crews generally do location-type surveys during the winter months when construction activity has been halted. This allows the survey crews to stay busy throughout the year.

Interviews with design personnel indicate that there are several reasons why survey crews do not submit complete and accurate survey packages. They believe that, because crews

switch back and forth between construction and preconstruction tasks, with construction work being predominant, the crews never get a chance to completely learn what is required when a location survey is requested. In addition, because surveys are often done during the winter, the accuracy of the surveys suffer because of the snow and cold weather.

Design personnel believe the survey packages could be better than the ones submitted now if location survey crews were used. We discussed the idea of using permanent location survey crews with Preconstruction and Construction Bureau officials. They were opposed to the idea because there would be less work for construction survey crews to do in the winter. They believed this would cause layoffs and increase the necessity of hiring temporary help during the summer when experienced personnel are required.

To avoid the workload problems during the winter months, the number of location crews could be limited. Location crews could be used strictly for complex location surveys and to retrieve data for design personnel when more information is required. Construction survey crews could still do the less demanding location survey work during the winter.

The use of full-time location crews would likely increase the accuracy and detail of the data required by design personnel. In addition, if items were missing from surveys, a location crew could get the information which would help to reduce design delays and alleviate the need for construction survey crews to halt their work to do design-related tasks.

The benefits of having limited location survey crews appear to outweigh the loss of some experience on the construction survey crews. Therefore, we believe the department should study the use of limited full-time location survey crews. Consideration should be given to placing the location survey crews under the supervision of the Preconstruction Bureau to increase responsiveness to designer requests.

RECOMMENDATION #16

WE RECOMMEND THE DEPARTMENT:

- A. STUDY THE USE OF LIMITED FULL-TIME LOCATION SURVEY CREWS.
- B. PLACE THE LOCATION SURVEY CREWS UNDER THE SUPERVISION OF THE PRECONSTRUCTION BUREAU.

Automation of Design Functions

The design personnel of the Preconstruction Bureau use a computer to determine various quantities and geometric calculations to aid in the design of highways. The use of a computer reduces the amount of time required to develop mathematical formulas and increases the accuracy of the design. The computer allows the designer to develop alternative designs because of a decrease in the time spent to manually calculate one design.

The designers fill out requests for computer work and submit them to the Data Processing Bureau. The designers must depend on data processing personnel to develop the information needed because design personnel have limited computer programming experience and training.

According to data processing and design officials, the general philosophy of the Preconstruction Bureau is that the Data Processing Bureau is responsible for training or aiding the designers in computer application. Data processing officials, however, believe it is easier to train other personnel in computer usage than it is for computer programmers to learn another section's specialty. In addition, data processing officials stated it is easier for fellow workers to explain problems and accept suggestions from someone who works directly with them.

The use of computer liaisons or individuals who have both computer knowledge and the specialized knowledge of their bureau or section is common within other areas of the department such as the Bridge Bureau, Accounting Bureau, and the Planning and Research Bureau. The department should encourage the use of automated design by training the designers in computer applications and by having a computer liaison position within the Location and Road Design Section. This person would be responsible for improving the automation skills of the designers.

RECOMMENDATION #17

WE RECOMMEND THAT THE DEPARTMENT ENCOURAGE THE USE OF AUTOMATED DESIGN BY:

- A. TRAINING DESIGN PERSONNEL IN COMPUTER APPLICATIONS.
- B. DEVELOPING A COMPUTER LIAISON POSITION WITHIN THE LOCATION AND ROAD DESIGN SECTION.

Hydraulics Unit Design

All highway projects which have water within the vicinity of the road are analyzed by the Hydraulics Unit of the Preconstruction Bureau. The unit examines all water courses to determine the size of pipes and the widths of bridges and culverts and then makes appropriate recommendations based on their analysis. They are responsible for making these recommendations to Consultant Design, division designers, and the Location and Road Design Section personnel in Helena. All the design personnel interviewed complained of long delays while waiting for recommendations from the Hydraulics Unit.

The designers attribute the Hydraulics Unit delays to too much in-depth analysis of simple projects and to the unit's workload. The unit's complete analysis of every water project for three different design sources has created delays in the design process. According to department officials, a complete analysis of all hydraulic projects was put into effect to protect the department from charges of poor hydraulic design and because of increased FHWA rules and regulations. Interviews with the FHWA and department officials have indicated that much of this analysis is not necessary on certain projects and that the road designer could do the design without the Hydraulics Unit's recommendations.

The department is investigating the possibility of using the road designers to do some water-related projects. A design manual and training program is being developed to aid the road designers in creating water-related designs. The department is currently working with FHWA officials to develop criteria concerning when an

in-depth analysis is needed. We believe road designers should do the hydraulic design after the department establishes criteria for when an in-depth analysis is not needed. This would reduce the workload of the Hydraulics Unit and speed up the design process.

RECOMMENDATION #18

WE RECOMMEND THE DEPARTMENT:

- A. ESTABLISH CRITERIA FOR WHEN IN-DEPTH ANALYSIS OF HYDRAULIC DESIGN IS NOT NEEDED.
- B. ALLOW ROAD DESIGNERS TO DO THE HYDRAULIC DESIGN WHEN IN-DEPTH ANALYSIS IS NOT NEEDED.

Consultant Selection and Evaluation

Consultants are used when the department either does not have the staff to do a particular project or when they do not have the personnel who are capable of developing a particular design. The dollar amount of consultant contracts remained fairly constant from 1979 to 1981 but was anticipated to drop substantially in 1982. Department officials said they expect this decreased use of consultants to continue. Consultants are selected by a consultant selection board made up of department officials. Consultant selection is approved by the department director. During our review of design consultant use we developed two concerns. First, not all consultant selection criteria are documented. Second, past performance of consultants is not documented.

The selection board has developed a consultant services procedure manual with specifics on the procedures for consultant

selection. The factors which are considered are scope of work, man-hours, salaries, overhead, total cost, previous and current expertise and past performance. A review of the selection board minutes and documents contained in Consultant Design files indicate at least two factors used in the selection of consultants are not established in the procedures manual. These factors are the number of projects which a consultant already has contracted with the department and the firm's location in relation to where the project will be located. Interviews with consultant selection board members revealed that the board tries to spread the work among several firms rather than just concentrating on a few.

The documentation of all selection factors is an important control. Documentation would provide written explanation for the selection of design consultants. This information would allow internal review of the selection factors, and also provide justification for department selections in the event of an external review. For these reasons the department should document all selection criteria in the manual, including the reason why such factors are utilized.

The procedures manual for selecting consultants states that past performance is a factor in awarding future contracts; however, the department does not formally document a consultant's performance. The selection board must rely on the subjective recommendations and observations of individual board members rather than having a formal document to base their decision on.

Interviews with consultants who have had department contracts indicate that they would support a formal evaluation of

their performance in order to make changes which would make them more competitive in future department requests for design proposals. According to interviews with the selection board members, they have hesitated to make written statements about performance because of intervening variables, such as environmental considerations, which may cause consultants to exceed established deadlines or cause consultants to redo their design.

The selection board should establish criteria which is measurable for the evaluation of consultant performance. Such criteria could include the number of design errors discovered during the construction of a project and the number of changes which had to be made in the design by department personnel.

RECOMMENDATION #19

WE RECOMMEND THE DEPARTMENT:

- A. DOCUMENT ALL CONSIDERATIONS UTILIZED IN THE SELECTION OF CONSULTANTS.
- B. IMPLEMENT FORMAL EVALUATION PROCEDURES SO THAT PAST PERFORMANCE OF CONSULTANTS CAN BE OBJECTIVELY USED AS A SELECTION FACTOR.

CHAPTER VII

RIGHT-OF-WAY

The department must acquire land for highway right-of-way for new construction projects and often for reconstruction projects. The Right-of-Way Bureau of the department is responsible for acquisition, management, and control of real property needed for state highway purposes. The 1981 Legislature has indicated concerns with acquisition methods and the disposal of excess right-of-way. These topics are discussed in this chapter. In addition to the disposal of excess right-of-way we discuss the renting and leasing of excess property.

RIGHT-OF-WAY ACQUISITION

During the design of a project, a Preconstruction Bureau right-of-way crew begins the development of right-of-way plans. The initial plans detail what parcels of land will be required and where utilities are located. From this information, the Right-of-Way Plans Section authorizes field right-of-way personnel to begin collection of data on who owns the parcels that need to be acquired.

A detailed right-of-way plan must be approved by the FHWA for projects in which the federal government participates. If the FHWA gives approval, the Right-of-Way Bureau authorizes field personnel to begin appraisal and acquisition of the identified parcels. The appraisal is usually performed by a department employee but may be performed by a contracted fee appraiser. The department employee who presents the offer is known as the negotiator.

When a landowner agrees with the appraised value of the land and sells the property, it is termed a negotiated settlement. If the landowner does not agree with the appraisal price, the negotiator may be given the authority to increase the offer in an attempt to settle. Any offer made which is over the appraisal amount that is agreed to, is termed an administrative settlement. The supervisor of the Negotiations Section may authorize settlements up to \$1,000 over the amount of appraisal; however, if a larger settlement is necessary, the transaction must be approved by the chief of the Right-of-Way Bureau and in some cases by the administrator of the Engineering Division. On projects which were selected from a random sample, the amount of time it took to acquire parcels which were negotiated or settled administratively ranged from three months to about two and one-half years.

All settlements which cannot be negotiated by the Right-of-Way Bureau are turned over to the department's Legal Division to acquire through the eminent domain process (condemnation). Eminent domain acquisition will be discussed in detail later in this chapter.

The majority of right-of-way parcels are obtained by the Right-of-Way Bureau through either negotiation or administrative settlement. For the last three years the Legal Division has only had to obtain approximately seven percent of the parcels either through out-of-court settlements or jury awards. However, the payments for these parcels were approximately 35 percent of the total right-of-way payments.

Illustration 13 indicates the number of parcels acquired by the department and how they were acquired for the last three calendar years. Also shown is a comparison of appraisal amount and actual payments for each type of settlement.

RIGHT-OF-WAY ACQUISITION

1979 to 1981

| <u>How Acquired</u> | <u>Total Parcels</u> | <u>% of Total Parcels</u> | <u>Appraisal Amount</u> | <u>Total Payment</u> | <u>% of Total Payment</u> | <u>% Over Appraisal Amount</u> |
|-----------------------------|--------------------------|-----------------------------------|-----------------------------|--------------------------|-----------------------------------|--|
| <u>1981</u> | | | | | | |
| Negotiated | 256 | 84 | \$ 492,684 | \$ 492,684 | 22 | 0 |
| Admin. Settlement | 19 | 6 | 454,400 | 623,733 | 28 | 37 |
| *Out-of-Court Settlement | 16 | 6 | 317,875 | 615,040 | 28 | 93 |
| *Jury Award | 11 | 4 | 326,555 | 483,264 | 22 | 48 |
| Total | <u>302</u> | <u>100</u> | <u>\$1,591,514</u> | <u>\$2,214,721</u> | <u>100</u> | <u>39</u> |
| <u>1980</u> | | | | | | |
| Negotiated | 278 | 85 | \$1,301,113 | \$1,301,113 | 67 | 0 |
| Admin. Settlement | 26 | 8 | 203,050 | 237,457 | 12 | 17 |
| *Out-of-Court Settlement | 12 | 4 | 95,569 | 203,575 | 11 | 113 |
| *Jury Award | 7 | 3 | 109,572 | 195,820 | 10 | 79 |
| Total | <u>323</u> | <u>100</u> | <u>\$1,709,304</u> | <u>\$1,937,965</u> | <u>100</u> | <u>14</u> |
| <u>1979</u> | | | | | | |
| Negotiated | 258 | 72 | \$1,099,436 | \$1,099,436 | 38 | 0 |
| Admin. Settlement | 78 | 22 | 730,216 | 824,488 | 29 | 13 |
| *Out-of-Court Settlement | 18 | 5 | 307,915 | 727,887 | 26 | 137 |
| *Jury Award | 3 | 1 | 83,080 | 194,490 | 7 | 134 |
| Total | <u>357</u> | <u>100</u> | <u>\$2,220,647</u> | <u>\$2,846,301</u> | <u>100</u> | <u>29</u> |

*Does not include payment of legal fees or interest payments.

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 13

Previsits to Landowners

When a survey to collect initial data on where a road may be located is authorized by department officials, the division construction supervisor dispatches a survey crew to begin gathering the data. If the survey requires encroachment onto private property, the survey crew supervisor seeks permission from the landowner to do the survey work. According to Right-of-Way Bureau officials, the divisions, in some cases, send Right-of-Way field personnel to obtain permission for the department to do survey work on private property. This allows the department to explain the purpose of the survey and receive some indication of the landowner's opinion on the possibility of a road in that location.

If a right-of-way agent is sent to obtain survey permission and give an explanation for the survey, the initial contact may reduce the possibility of future difficulties with the landowner. Right-of-way employees are usually more adept at dealing with the public than survey crews because of their experience with appraisals and negotiations. In addition, the right-of-way agent may be able to contribute to the project planning process by supplying information concerning whether the landowner may sell his property or if the department will have to initiate eminent domain proceedings. This type of information could enable right-of-way officials and Project Control personnel to more accurately predict the right-of-way acquisition period for the parcels on a particular project. For these reasons the department should expand the use of previsits by right-of-way personnel with landowners to explain the reasons for location surveys and collect information for scheduling purposes.

RECOMMENDATION #20

WE RECOMMEND THAT THE DEPARTMENT EXPAND THE USE OF PREVISITS WITH LANDOWNERS BY RIGHT-OF-WAY PERSONNEL.

Collection of Market Data

On federally funded projects, the department must wait until the FHWA reviews and approves the right-of-way plans before the Right-of-Way Bureau begins the process of appraisal and acquisition of right-of-way. Part of the initial appraisal phase involves collection of market data on the sale of land in the surrounding area which is comparable to the land the department must acquire. The land sales information aids in determining the value of the right-of-way to be acquired.

Interviews with right-of-way officials and FHWA officials indicate the collection of market data is done after the FHWA gives approval for appraisal and acquisition. The collection of market data is a time-consuming process because the appraisers must research records of past land sales and then speak with either the buyer or the seller to verify the records. A right-of-way official indicated this collection may take up to three weeks for a simple rural project and longer for more complex projects which involve dense population areas. An FHWA official believes the collection of market data could be accomplished prior to their approval of the right-of-way plans. This would reduce the amount of time that is required for the acquisition of right-of-way after final approval is received.

Right-of-way officials stated that prior to the start of the appraisal and acquisition stage they do preliminary work on estimating the cost of right-of-way for the project. They agreed that the collection of market data could be included in their preliminary estimate work for some projects, provided the data is not collected too early. Right-of-way officials further stated that earlier collection of market data may be necessary to complete acquisition of parcels within department established deadlines. We believe the collection of market data prior to the appraisal and acquisition process would increase the department's ability to more accurately set bidletting dates and to estimate the costs of right-of-way.

RECOMMENDATION #21

WE RECOMMEND THAT THE DEPARTMENT BEGIN COLLECTION OF MARKET DATA PRIOR TO THE START OF THE APPRAISAL AND ACQUISITION PHASE.

Combining Appraisal and Negotiation Processes

The appraisal of property to establish a dollar value is accomplished by compiling factors which affect the fair market value of the parcel. The appraisal is usually done by one individual and the acquisition or negotiation of a parcel is accomplished by someone else.

Recently the department combined the appraisal and negotiation functions on a project. One individual appraised and negotiated the same parcel. The only restriction to the practice was that the parcel had to have a value of \$300 or less. The appraisal-negotiation combination was an experiment to see if the right-of-way acquisition

time could be reduced. The FHWA has approved the practice for a pilot program and right-of-way officials stated they are discussing increasing the dollar value on this practice up to \$500. A right-of-way official also stated that combining the appraisal and negotiation process reduced administrative costs by nearly 50 percent on parcels where the two functions were combined. Because of the increased effectiveness and efficiency of this practice, the department should expand the use of combining appraisal and acquisition.

RECOMMENDATION #22

WE RECOMMEND THE DEPARTMENT EXPAND THE USE OF COMBINING THE APPRAISAL AND ACQUISITION PROCESSES.

Contracting for Services

The 1981 Legislature expressed concern with the department's contracting for professional services. In connection with right-of-way acquisition, the department contracts with abstracters and fee appraisers. These types of contracted services are discussed below.

Abstracters

The department requires title evidence for all parcels of right-of-way it acquires. Title evidence is secured in the form of a memorandum of title, prepared and certified by a title company. The memorandum of title is designed to furnish factual information as to the record owner, manner of acquisition by the owner, easements, encumbrances, tax status, title defects, and property description.

The expenditures to title companies for the last three calendar years is shown in Illustration 14. The increase in the amount spent from 1980 to 1981 was a result of a large number of urban projects that had been approved for construction.

AMOUNT SPENT FOR MEMORANDUMS OF TITLE
1979 to 1981

| | |
|------|----------|
| 1981 | \$49,940 |
| 1980 | 28,213 |
| 1979 | 19,829 |

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 14

During our audit of the department, we found no particular problems with the contracting of abstracters.

Fee Appraisers

It is the policy of the Right-of-Way Bureau to appraise all properties before negotiation or condemnation actions are commenced. All appraisals are prepared by department employees or by fee appraisers.

The majority of the fee appraisers contracted by the department are for condemnation purposes. Fee appraisers are also contracted for the more difficult parcels or if nobody on the staff has the expertise needed to appraise the parcel.

The department maintains a current list of contract fee appraisers who have been approved for special assignment. Before approval by the department the appraiser must submit a demonstration appraisal and must meet specific education and/or experience requirements. Appraisers with less than the qualifications stated

in the right-of-way policy manual may be accepted for limited assignments on a probationary basis if their demonstration appraisal report and experience reveal good potential ability.

Before an assignment is made to a fee appraiser, the project is inspected by a review appraiser to determine the scope of the work to be accomplished. The review appraiser also determines the complexity and potential problems with the appraisal, materials and information available, and estimates the amount of time that will be required to complete the appraisal work. An Estimate of Appraisal Fee form is then completed and signed by the reviewer before negotiation for the appraisal contract is begun.

Fee appraisers demonstrating the ability to provide good quality reports on the particular type of properties to be appraised are contacted to determine if they could provide the necessary appraisal. After locating an appraiser available to do the work, the department will provide him with right-of-way maps to assist him in reviewing the work and estimating the time involved in the proposed assignment. The appraiser then submits his proposal in writing, setting forth the amount he feels his fee should be and the date on which he believes he can complete his appraisal. A lump-sum fee is negotiated using the Estimate of Appraisal Fee as a guide. The expenditures for fee appraisers for 1979 to 1981 are shown in Illustration 15.

AMOUNT PAID TO FEE APPRAISERS
1979 to 1981

| | |
|------|----------|
| 1981 | \$52,209 |
| 1980 | 86,863 |
| 1979 | 53,763 |

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 15

Appraisal fees are based on the qualification of the individual appraiser and the estimated time required to complete the assignment. Base rates range from \$200 per day for appraisers accepted on the approved list on a limited assignment basis, to \$250 per day for fully qualified appraisers. The \$250 per day was established after discussion between the department and some fee appraisers.

Only one fee appraiser is asked to submit an estimate on each project. If the Legal Division asks for a specific appraiser, only that appraiser is approached with the assignment. Otherwise, the first appraiser that is contacted that has time to do the appraisal is sent the necessary information. If the appraiser's estimate is reasonably close to the department's estimate, the two parties will negotiate a contract amount.

The Federal Office of Management and Budget Circular A-102, Attachment O, which is applicable to the department's expenditure of highways funds, states: "All procurement transactions, regardless of whether negotiated or advertised and without regard to dollar value, shall be conducted in a manner that provides maximum open and free competition." Soliciting an estimate from only one appraiser does not provide maximum open and free competition. The department should solicit estimates from two or more fee appraisers in an attempt to obtain the most competitive price.

RECOMMENDATION #23

WE RECOMMEND THE DEPARTMENT SOLICIT ESTIMATES FROM TWO OR MORE FEE APPRAISERS.

EMINENT DOMAIN ACQUISITION

As mentioned earlier, all parcels which cannot be acquired through negotiation by the Right-of-Way Bureau are acquired by the Legal Division through the eminent domain process.

Eminent domain actions are approved by the department director before a complaint is prepared for filing with the district court in the county where the parcel is located. A summons is issued to the landowner by the sheriff of the county where the parcel is located. After the summons has been served, the landowner may request a hearing on the necessity of the department's action. The hearing on necessity is often waived because the landowner is not opposed to the taking of the parcel, only to the dollar amount offered by the department. If a necessity hearing is held, the court decides:

- whether the property is being taken for a public use;
- whether the amount of property being taken is necessary;
and
- whether the project is planned and located in a manner compatible with the greatest public good and least private injury.

Obtaining Possession

If the necessity hearing is waived or the court determines there is a necessity for the right-of-way take, the department may gain possession of the property by one of two alternatives. The

department can get possession early in the legal process by depositing with the court the landowner's asking price for the property or an amount agreed upon by the department and the landowner. If the landowner is asking for more than the department is willing to deposit, the department must wait until a condemnation commission establishes a price for the property. A condemnation commission is used when either party wants to establish a value for a parcel other than the values previously established. The department can then deposit the condemnation commission's award and take possession.

Final Offer

Within 30 days after an appeal from the condemnation commissioner's award, or not more than 60 days after the waiver of the condemnation commission hearing, the department must make a final written offer to the landowner for his property. The landowner may accept this offer or any offer made by the Legal Division during the legal process. These out-of-court settlements occurred for approximately 65 percent of the parcels that were obtained by the Legal Division from 1979 to 1981. When a landowner does not accept the department's final offer, a trial date is set.

In most cases, out-of-court settlements and jury awards cost the department more than administrative settlements because of the increased complexity of the case and the necessity for the landowner to obtain legal representation. Comparisons of payments to appraisals for various types of settlements are shown in Illustration 13 on page 87. For 1981, administrative settlements averaged 37 percent over appraisal, while out-of-court settlements were 93 percent over and jury awards were 48 percent over.

Legal Fees and Interest Payments

When the landowner does not accept the department's final offer and the jury awards less than department's final offer, the landowner must pay his own legal fees. If the jury award is higher than the department's final offer, the department pays all necessary litigation expenses of the landowner. The FHWA does not participate in the payment of landowner legal expenses which are a part of out-of-court settlements and jury awards.

In addition to the payment of legal fees and the final established value of the parcel, the landowner is entitled to receive interest of 10 percent per year of what is finally awarded for his property. The interest begins the day the landowner receives the condemnation summons from the sheriff. Prior to the 1981 legislative session, the interest started the day the department took possession of the property which gave the landowner added incentive to relinquish possession.

Time to Settle

The amount of time it takes to acquire right-of-way when it must be obtained through the eminent domain process is substantially longer than the time it takes to acquire parcels that are settled by negotiation or administrative settlement. Litigation time, once a parcel enters the condemnation process, ranges from about 2½ years to over 13 years on parcels we randomly reviewed. The longer times for condemnation are caused by unavailability of court dates, delays, and extensions caused by landowners and intentional delays by the department. The purpose of the delays by the

department are to determine the actual depreciation caused by a highway once it has been constructed rather than relying on estimates of depreciation.

Condemnation Commission Qualifications and Payment

During the audit we developed concerns about the statutory qualifications of condemnation commission members and the method of paying these commissioners. These concerns are discussed below.

Qualifications

Section 70-30-207, MCA, states the qualifications for a condemnation commission member. Qualifications include being between 18 and 70 years of age, being in possession of natural faculties, of ordinary intelligence and not decrepit, and being assessed on the last assessment role of a county in the judicial district in which the action is pending.

The qualifications for being a condemnation commissioner do not appear to be reasonably related to the function of a commission member. In some cases the age qualification for being a condemnation commissioner has been waived. This was done on the theory that this qualification conflicted with the statutes prohibiting discrimination on account of age. The Legislature should consider what type of qualifications are reasonably related to being a condemnation commission member and then amend the law to include those qualifications.

Payment

There is no provision in the law for the payment of commissioners for their service. The administrator of the Legal Division

stated the usual payment for condemnation commission members is \$200 per commission hearing; however, a review of division files indicates the department has paid up to \$400 per commission hearing for their services. Condemnation commission hearings usually last one day. In fiscal year 1980-81 there were approximately 14 condemnation commission hearings which cost the department about \$8,400 in commissioner payments.

The law also does not state who is responsible for the payment of condemnation commissioners. The department has been paying the compensation of condemnation commissioners based on a 1951 Attorney General's Opinion (24 Opinions of the Attorney General, Number 6) which states condemnation commissioners must be paid by the party seeking to condemn the property. The Legislature should provide for uniform payment for all condemnation commissioners and also state who is responsible for payment of commission members.

RECOMMENDATION #24

WE RECOMMEND THAT LEGISLATION BE ENACTED TO:

- A. REVISE OR DELETE THOSE QUALIFICATIONS FOR COMMISSION MEMBERS WHICH ARE NOT REASONABLY RELATED TO PERFORMING COMMISSION DUTIES.
- B. PROVIDE FOR UNIFORM COMPENSATION OF CONDEMNATION COMMISSION MEMBERS AND SPECIFY WHO IS RESPONSIBLE FOR THE PAYMENT OF THE COMMISSIONERS.

EXCESS LAND

The Department of Highways has acquired a considerable amount of land in excess of its right-of-way requirements through the years of acquiring land for highway construction. The majority of the excess land acquired is due to one or more of the following reasons, according to the department's right-of-way manual:

1. The tract was severed from the parent property and could not be utilized because of its limited size or the owner did not want it.
2. Access to the tract had been cut off, particularly on interstate highways or due to construction features.
3. Most of the ownership was in the taking, leaving only an uneconomic remainder.
4. The area was purchased for materials sources and all of the materials have been removed.
5. It was more economical to purchase the entire parcel rather than pay depreciation on the portion not purchased.
6. The area became excess as a result of a plan change.

The excess land can either be disposed of, or can be rented or leased. The following sections discuss the disposal and rental of excess land.

Disposal of Excess Land

Most sales of excess land are initiated by someone interested in buying the land. Upon receiving an inquiry concerning the purchase of some property, the department makes a determination as to whether the department has merchantable title to the land. If the department does not have merchantable title, the person will be so notified and the land will not be sold. Merchantable title is

not available if the department has an easement but not the deed to the land. The department has the option of leasing the easement.

Upon determining that the department has merchantable title, the district property manager will ascertain whether the Department of Highways, the Department of Fish, Wildlife, and Parks, or the city, county, or conservation groups has any use for the land. FHWA approval of the sale is also needed if it participated in any of the project costs.

After approval of the sale from the above parties, an appraisal is done. The land has to be appraised within three months prior to the date of sale. If the land has a value of \$100 or less, a private sale can be held. Any land valued at more than \$100 must be sold at a public auction at the county courthouse of the county in which the land is located. Notice of the sale must be published once a week for four successive weeks prior to the sale. Excess land cannot be sold for less than 90 percent of the appraised value. The former owner or his successor in interest is given the opportunity to meet the high bid if a waiver of repurchase rights has not been signed.

Illustration 16 shows excess land sales from 1979 to 1981. The sales for these three years total approximately \$590,000.

PROCEEDS FROM THE SALE OF EXCESS LAND
1979 to 1981

| <u>Year</u> | <u>Number of Parcels</u> | <u>Amount</u> |
|-------------|--------------------------|------------------|
| 1981 | 20 | \$418,767 |
| 1980 | 10 | 21,780 |
| 1979 | 9 | 149,070 |
| | <u>39</u> | <u>\$589,617</u> |

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 16

Auction vs. Sealed Bids

Prior to April 1981, the department could sell excess land valued over \$100 through sealed bids or at a public auction. The 1981 Legislature amended the applicable statute, section 60-4-202, MCA, so all sales of land with a value over \$100 must be sold at a public auction. This change has proven to be costly to the department.

The majority of the land sales the department held prior to April 1981 were through sealed bids. Interested parties were supplied the necessary information concerning the sale and a bid form. The form was returned to the department with 10 percent of the amount of the bid. On a specified day the department would open the bids and notify each bidder if he had the highest bid. The process of opening the bids and informing the bidders, via a form letter, took one person about one hour. The public auction process takes much longer since a department employee has to travel to the county courthouse in the county in which the land is located. It is also more inconvenient for the people desiring to bid on the land since they also have to travel to the courthouse.

A public auction could take a full day of a department employee's time if a lot of travel is involved.

The department also found the new law has decreased the proceeds received from the sale of excess land. From January 1979 to the law change in 1981, 23 parcels were sold. Of these 23, all but 1 parcel was sold for more than 90 percent of the appraised value. Since the new law has been in effect, 16 parcels have been sold. Eight of the parcels were sold for only 90 percent of the appraised value.

The department should have the option to hold an auction or accept sealed bids because its acquisition policies result in many excess parcels which could be sold. The Legislature has approved both methods of sale in the past. The Department of State Lands must sell land at a public auction while the Department of Fish, Wildlife, and Parks must sell land by sealed bids. Giving the department the option could save the department time and money and result in sales prices closer to true market value.

RECOMMENDATION #25

WE RECOMMEND THAT LEGISLATION BE ENACTED GIVING THE DEPARTMENT THE OPTION TO SELL LAND AT A PUBLIC AUCTION OR THROUGH SEALED BIDS.

Private Sales

Many of the smaller parcels of land owned by the department have no value to anyone but the adjoining landowner(s). For the department to sell these under the present law, the land has to be

sold at a public auction if it is valued over \$100. Department officials estimated it costs approximately \$600 to sell land through a private sale and \$950 to sell land at a public auction. Since it costs an additional \$350 for the department to hold an auction, it loses that much each time a low cost parcel is sold by auction rather than by private sale. For example, if a parcel is appraised at \$700 the present law requires an auction. If the land brought appraised value the state would lose $\$950 - \700 or \$250. If the land could be sold at private sale for appraised value the state would make $\$700 - \600 or \$100.

If the statutes are changed so the value of land at which a private sale could be conducted was raised to a level to approximate the cost of the sale, the state would lose less money on the sale. The department indicated it would make more of an effort to sell the low cost parcels if it could at least recover more of the costs of the sale.

RECOMMENDATION #26

WE RECOMMEND LEGISLATION BE ENACTED RAISING THE VALUE OF LAND AT WHICH A PRIVATE SALE COULD BE CONDUCTED TO A LEVEL TO APPROXIMATE THE COST OF THE SALE.

Successor in Interest

Section 60-4-204, MCA, states, "The owner from whom the interest was originally acquired or his successor in interest shall have the option to purchase the interest by offering therefor an

amount of money equal to the highest bid received for the interest at the sale." This law has created problems for the department in that there may be many successors in interest if the land was subdivided after the original sale, or when both the previous owner and successor in interest want to buy the land. Presently, these cases often end up with the courts deciding which party has the option of matching the highest bid. The department actively seeks to have the original owner sign a waiver of repurchase when land is acquired. This is to alleviate the problems mentioned above, in case the land becomes excess later on. The department is not always successful in its attempts to obtain these waivers.

The eminent domain law was amended by the 1981 Legislature to alleviate some of the problems dealing with the successor in interest law. Section 70-30-322, MCA, states "If more than one person claims an equal entitlement, the option (of purchase by the previous owner or successor in interest) may not be exercised." If the present highway law (which takes precedence over the general eminent domain law) is changed to read the same as the general eminent domain law, some of the successor in interest problems experienced by the department could be eliminated. The law could also be changed so that if the use of the land has materially changed since the original purchase, such as subdividing an agricultural area, the previous owner or successor in interest would not have the option of meeting the high bid. In all cases, the previous owner or successor in interest has the option of bidding directly on the land.

RECOMMENDATION #27

WE RECOMMEND THAT LEGISLATION BE ENACTED TO REMOVE THE SUCCESSOR IN INTEREST PROVISION OF THE HIGHWAY LAW IF MORE THAN ONE PERSON CLAIMS EQUAL ENTITLEMENT, OR IF THE USE OF THE LAND HAS MATERIALLY CHANGED.

Renting and Leasing of Excess Land

Section 60-4-106, MCA, states, "The department may lease unused portions of lands or other real property which are held for highway purposes and interstate highway rights-of-way which are not presently needed for highway purposes on the terms and conditions it decides." Tracts of excess lands are usually rented or leased instead of sold when any of the following criteria exist, according to the department's right-of-way manual:

1. The state cannot issue a merchantable title.
2. The tract may be required for future highway or maintenance purposes.
3. The tract contains gravel which can be used on future highway projects.
4. The tract is to be retained for exchange purposes for right-of-way on another project.

The department rents land under a use permit or lease agreement. A use permit is issued without competitive bidding, with a ten-day cancellation clause, for an indefinite period, and without assignment privileges unless authorized by the state. Rents are collected in advance in accordance with the department's policy at the time of permit issuance. Amounts for the permits range from

no charge to \$320 per year, most being for no charge or \$10 per year. As of February 1982, there were 316 use permits issued for a total yearly charge of \$4,530.

Lease agreements are issued generally when improvements, such as houses, are situated on the excess land. The agreements are issued for a 3-year term with renewal or revocation options, and with a cancellation clause normally of 30 days. One reason the department issues leases is for protection against vandalism and deterioration of the property. There were 15 lease agreements in February 1982, with rents ranging from \$50 to \$1,110 per month. The total yearly charge was \$46,500.

Agricultural leases are also issued by the department. These are issued for a 1-year period subject to renewal or revocation with a 30-day revocation period. Agricultural leases are issued for agricultural purposes only and are generally issued on larger tracts of land for more than a nominal rental. The charges for agricultural leases range from no charge to \$605 per year. As of February 1982, there were 50 leases issued for a total yearly charge of \$6,356.50.

The funds from the use permits and leases are credited to the department. The FHWA is reimbursed a percentage of the payment if the project is still active, and if the payment is more than \$100 a year. The percentage reimbursed is the same percentage as the initial FHWA participation in the purchase. If the project is closed, an active project near the closed project, and in the same financial district, is credited with the funds.

As stated previously, most use permits and some leases are issued at no charge or for \$10 per year. The department estimated that it costs about \$60 to establish the use permit initially, and \$25 to process the renewal of the permit each year. The cost to establish and renew leases would also be at least that much. The majority of the use permits are not recovering the costs to renew the permit, let alone initially issue the permit. The same is true for the low cost leases. It is recommended that the department set the minimum fee of use permits and leases to at least cover the costs of issuing and renewing the permits and leases.

RECOMMENDATION #28

WE RECOMMEND THAT THE DEPARTMENT SET THE MINIMUM FEES OF USE PERMITS AND LEASES TO AT LEAST COVER THE COST OF ISSUING AND RENEWING THE PERMITS AND LEASES.

CHAPTER VIII

BIDLETTING AND CONTRACT MONITORING

The 1981 Legislature listed several concerns related to the department's bidletting and prequalification system, as well as contract monitoring. The concerns can be categorized as follows:

- Are contracts being competitively bid and is the department's system adequate?
- How does the department apply the resident bidder preference to highway contracts and what effect does the preference have?
- Does the department have reasonable methods for prequalifying contractors?
- Does the department have an adequate system for monitoring contracts?

COMPETITIVE BIDDING

Montana law allows the department to establish a system for letting highway contracts. Concerns have been expressed that the department may not be fostering free and open competition through its practices. We did not find any cases in which the department had not let a construction contract through competitive bidding.

There was a concern that the department was negotiating contracts. This misconception may have occurred because about ten years ago the department allowed its local personnel to let small contracts with only local advertisement for bids. This practice was called negotiation but the practice has been discontinued.

The only negotiation we found was for extra work related to already awarded contracts. If there is unforeseen work related to a contract, the department will attempt to negotiate a price with

the contractor. If no agreement can be reached, then the department has the option of requiring the contractor to perform the work for cost plus a stated percentage profit. This situation is discussed later with respect to contract monitoring.

We discussed the issue of competitive bidding with the FHWA. They responded their reviews indicated that the department is doing a good job with respect to competitive bidding.

RESIDENT BIDDER PREFERENCE

Montana law (section 18-1-102, MCA) requires the department to give a three percent preference to resident contractors, unless a federal law or regulation prohibits such a preference. A recent controversy arose over whether the preference should be applied to federal-aid highway projects. An FHWA official stated that the federal government would not participate in any contracts to which a bidder preference was applied.

The department has not awarded any federal-aid projects using the preference and according to this ruling probably will not be able to in the future. However, on totally state funded projects, the state should apply the preference. Our review indicates that the department has not had occasion to grant a state funded contract based on preference because there have not been any nonresident low bidders on such contracts.

In the future, this provision may be more important. The decrease in federal funds will probably lead to more and larger state funded projects. These larger projects may attract nonresident competition. At such time, the department may have to apply the preference to a significant amount of contracts.

PREQUALIFICATION

In order to bid on highway construction contracts, a contractor must prequalify with the department. Montana is one of forty-five states which prequalify contractors. Prequalification is supported by the Federal Highway Administration, The American Association of State Highway and Transportation Officials, the Transportation Research Board, and most contractors. The prequalification process involves an evaluation of the contractor's financial condition and previous experience by a committee of department officials. The end result is a limit on the size of project on which a contractor may bid. To determine the prequalification amount, the department uses a formula which includes the contractor's performance, short-term net worth, long-term net worth, and plant and equipment.

There were 215 contractors prequalified to bid in Montana for calendar 1981, with 85 being able to bid on any size project. Illustration 17 shows a breakdown of the prequalified contractors for 1981.

PREQUALIFIED CONTRACTORS (1981)

| <u>Amount of Rating</u> | <u>Montana Contractors</u> | <u>Out-of-State Contractors</u> | <u>Total Contractors</u> | <u>% of Total No. Prequalified</u> |
|-------------------------|--------------------------------|-------------------------------------|------------------------------|--|
| \$ 0 - 125,000 | 17 | 0 | 17 | 7.9 |
| 125,001 - 250,000 | 32 | 5 | 37 | 17.2 |
| 250,001 - 500,000 | 27 | 3 | 30 | 14.0 |
| 500,001 - 750,000 | 7 | 1 | 8 | 3.8 |
| 750,001 - 1,000,000 | 5 | 0 | 5 | 2.3 |
| 1,000,001 - 1,250,000 | 5 | 0 | 5 | 2.3 |
| 1,250,001 - 1,500,000 | 5 | 0 | 5 | 2.3 |
| 1,500,001 - 1,750,000 | 5 | 1 | 6 | 2.8 |
| 1,750,001 - 2,000,000 | 4 | 4 | 8 | 3.7 |
| 2,000,001 - 2,250,000 | 0 | 1 | 1 | .5 |
| 2,250,001 - 2,500,000 | 2 | 1 | 3 | 1.4 |
| 2,500,001 - 3,000,000 | 3 | 2 | 5 | 2.3 |
| Over 3,000,000 | 25 | 60 | 85 | 39.5 |
| | <u>137</u> | <u>78</u> | <u>215</u> | <u>100.0</u> |

Source: Montana Department of Highways.

Illustration 17

We performed an evaluation of the prequalification process to see if its effectiveness could be improved. Some areas where the prequalification system could be made more effective are discussed below. The following sections discuss:

- Total Contracts.
- Unlimited Prequalification Amount.
- Documentation of Contractor Performance.

Total Contracts

The present prequalification system concerns itself with individual contracts only. The amount of other outstanding work for a given contractor is not considered. The department believes an individual contract prequalification amount is desirable so contractors do not get contracts which are beyond their resources. However, we are concerned that multiple contracts may pose the same danger.

For example, a contractor prequalified for \$1 million could have multiple contracts of that size outstanding. He could then bid on an additional contract which could overtax his resources and put him into default on all of the contracts.

Some other states have prequalification amounts for total contracts. We believe that the department should adopt a prequalification system which considers the total state highway contracts outstanding for a given contractor.

RECOMMENDATION #29

WE RECOMMEND THE DEPARTMENT ADOPT A PREQUALIFICATION SYSTEM WHICH REVIEWS THE TOTAL STATE HIGHWAY CONTRACTS OUTSTANDING FOR A GIVEN CONTRACTOR.

Unlimited Prequalification Amount

Under present department rules, any contractor who has a prequalification amount in excess of \$3 million may bid on any contract regardless of size. As noted previously, 85 contractors may bid on any size contract. This limit has been in effect since prior to 1970. Over that period of time, construction costs have more than doubled. For fiscal years 1979-80 and 1980-81, about 15 percent of all contracts were in excess of the \$3 million limit, with the largest being in excess of \$12 million. If prequalification is to protect the state from contractor default, we believe the department should reassess the unlimited prequalification amount in view of today's larger contract sizes.

RECOMMENDATION #30

WE RECOMMEND THE DEPARTMENT REASSESS THE PRE-QUALIFICATION AMOUNT NEEDED FOR A CONTRACTOR TO RECEIVE AN UNLIMITED RATING.

Documentation of Contractor Performance

Contractors are assigned a performance rating by the department based on experience and performance on past contracts with the department. In practice, the Construction Bureau Chief suggests a rating to the Prequalification Committee, which usually adopts the recommendation. The basis for the performance rating adopted by the committee is not documented. There are no formal evaluations of contractors by the department's field personnel upon which to base the performance rating. We believe the department should implement a contractor evaluation system and use that as the basis for its performance rating. Such a system would provide a documentary base for its actions.

RECOMMENDATION #31

WE RECOMMEND THE DEPARTMENT IMPLEMENT A FORMAL CONTRACTOR EVALUATION SYSTEM AND USE THE DATA GATHERED AS THE BASIS FOR ITS PERFORMANCE RATING.

BID TABULATIONS

After each bidletting, the results of the bids are input into a computer file. This computer file is used to recalculate the bids and determine which bidder was the lowest. It is also used to

generate average costs for materials which the department uses to prepare its future project cost estimates. During our review, we developed a concern with the limited information available on average costs. This concern is discussed in the following section.

Average Costs

The department prepares a summary every six months of the average cost of each construction item for the preceding six months. The department uses this information to estimate the costs of future construction projects.

We were concerned that the average costs computed are overly simplistic. For example, the average cost for unclassified excavation is the total cost divided by the total yards. Variations by location in the state or volume of work to be performed are not taken into account. In addition, average costs do not take into account whether the project was interstate, primary, secondary, or urban. Department officials noted that costs vary between areas of the state and between sizes of jobs.

With the average cost information now available, department officials must adjust the costs based on how they believe this project will relate to the statewide averages. More detailed average costs would reduce the need for adjustments by department officials. The cost of calculating more detailed averages should be minimal.

We believe the department should do a more detailed analysis of the costs. There should be separate averages calculated for small, medium, and large jobs and for jobs in different parts of the state. More detailed average costs could result in more accurate

cost estimates for jobs being let for bid. These detailed costs could also be useful when the department is preparing project costs for its needs assessment.

RECOMMENDATION #32

WE RECOMMEND THE DEPARTMENT PREPARE A MORE DETAILED AVERAGE COST ANALYSIS OF PAST BID ITEMS.

CONTRACT MONITORING

The department contracts with private firms for highway construction and then monitors that construction with department personnel on-site. These department personnel are to assure the state gets a quality product.

A common complaint by the public and the 1981 Legislature is that the department's construction personnel do not appear to be advancing the construction of the road. However, they do serve a useful purpose. They take samples of materials and observe the placing of materials to assure that only quality material is used and that the material is placed properly. They measure the quantity of materials going into the road to assure that the state only pays for what it receives. They survey the project to assure that proper grades are maintained and everything lines up properly.

If anything, we thought the department might be doing too much inspecting. When we examined the proposition of less review by the department, we found that the potential solutions seemed to have more costs than benefits.

Our review revealed two concerns with contract monitoring. The concerns, related to change and extra work orders and project checking, are discussed below.

Change and Extra Work Orders

The purpose of a change or extra work order is to authorize performance of new and unforeseen work which is outside the scope of the original contract items. Both documents require initiation by the department rather than by the contractor. A change order originates when payment for accomplishing the extra work is mutually agreeable between the contractor and the department. Such an agreement must be established and executed before the work may begin. If, however, prices to perform the extra work cannot be agreed upon, an extra work order is initiated. The contractor will then be reimbursed for actual expenses incurred in performing the extra work plus a profit.

As part of our review of projects completed during fiscal years 1979-80 and 1980-81, we examined a sample of change and extra work orders. Extra work orders were initiated in only 28 percent of the sample projects. Their total dollar value represented less than 1 percent of the total bid prices for projects in which they appeared. Change orders were initiated in 80 percent of our sample projects. They generally did not represent significant dollar amounts in relation to bid prices. However, we did note some instances in which final construction costs exceeded bid prices when large change orders were involved.

There had been some concern expressed by the 1981 Legislature that contractors were bidding low and then using change

orders to boost the size of the project and make a large profit. Our review did not find that to be the case. In most instances, the department, not the contractor, requested the change.

Our only major concern with the present change order system is the requirement for approval of all change orders by headquarters in Helena. The following section discusses this concern in more detail.

Change Order Approval

Departmental policy currently requires that all change orders receive final approval from the Construction Bureau in Helena. This results in unnecessary processing costs since many change orders represent relatively small dollar amounts. Such costs could be reduced by delegating the authority to approve change orders, below some specified dollar limit, to the division level. Delegation, however, should not apply to federally funded interstate projects. Change orders related to this type of project must be approved by the Federal Highway Administration, and therefore, should be routed through Helena.

Illustration 18 gives the distribution of change orders for fiscal year 1980-81.

CHANGE ORDER DISTRIBUTION
Fiscal Year 1980-81

| | <u>Amount of Change Order</u> | | | | | | |
|---------|-------------------------------|---------------------------------|---------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|
| | \$ 0 to <u>5,000</u> | \$ 5,000 to <u>10,000</u> | \$10,000 to <u>50,000</u> | \$ 50,000 to <u>100,000</u> | \$100,000 to <u>250,000</u> | \$250,000 to <u>500,000</u> | \$500,000 and <u>Over</u> |
| Number | 200 ¹ | 75 | 115 | 14 | 13 | 4 | 0 |
| Percent | 47.5 | 17.8 | 27.3 | 3.3 | 3.1 | 1.0 | 0 |

¹Estimated - Actual number not available.

Source: Compiled by the Office of the Legislative Auditor from department records.

Illustration 18

We were unable to determine the actual number of change orders representing amounts less than \$5,000 for fiscal year 1980-81. However, based upon the correlation between the distribution of change orders for sample projects and the actual distribution of change orders for fiscal year 1980-81, we project that approximately 200 change orders less than \$5,000 were processed. Of those, we estimate approximately half did not require federal approval.

As noted in Chapter IV, the department has created a system of regional managers. Part of the reason for creating the regional manager positions was to delegate more authority and responsibility over construction to the field. If the present change order system is retained, the regional managers would have responsibility for millions of dollars of construction but almost no authority to approve changes. Good management principles dictate that authority and responsibility must both be delegated. Therefore, we believe the department should delegate some authority to approve change orders to the field divisions. Department officials indicated they

have recently delegated authority to approve change orders under \$10,000 to regional managers.

RECOMMENDATION #33

WE RECOMMEND THAT THE DEPARTMENT DELEGATE AUTHORITY TO APPROVE CHANGE ORDERS FOR AT LEAST \$5,000 TO THE DIVISION LEVEL.

Project Checking

The department checking system involves field, division, and Helena personnel. Employees at the field level are responsible for calculating the quantities of items actually used in construction of the project. If available manpower permits, the quantity documentation may be reviewed before being submitted to the division office. Upon receipt by the division, all calculations are thoroughly checked to insure accuracy, as well as compliance with federal regulations. The federal regulations require that all calculations be checked at least once. Quantity documentation is subsequently sent to Helena where it is reviewed for procedure, format, and completeness. Currently, calculations are not rechecked unless a significant difference exists between estimated and actual quantities used for a specific item.

A consistent complaint made by field personnel was that too much time is spent on project checking. They maintained that computations of actual quantities used are checked numerous times. We noted that the days actually used for the checking process did exceed guidelines established by the department. The department's goal is that all checking be concluded within 120 days of the date

construction is completed. Results of a review of a sample of projects completed during fiscal years 1979-80 and 1980-81 indicate that at least 198 days on the average was being used to conclude checking. Such a delay results in a corresponding delay in the processing of a contractor's final payment.

Department personnel attribute part of the difference between days actually used and established criteria to a substantial increase in the amount of construction projects awarded in fiscal years 1978-79 and 1979-80. Most of these projects were completed during the time span covered by our sample.

Another reason is each project used to be checked completely in Helena, as well as in the division office. As noted previously, the department has reduced the amount of checking done in Helena.

A third delay occurred at the division level. Formerly, many projects were not submitted to the division office for checking until the project was completed. The department is in the process of implementing a prechecking system in some divisions. Under this system all quantity documentation is submitted from the field to the division as work with a specific pay item is completed rather than when the project is completed. Full implementation of this system will provide a more constant flow of documents for checking and will reduce the actual number of days used. We discussed this with department officials and they believe the delays in project checking have now been eliminated.

RECOMMENDATION #34

WE RECOMMEND THAT THE DEPARTMENT FULLY IMPLEMENT A PRECHECKING SYSTEM IN ALL DIVISIONS TO AID IN PROCESSING THE FINAL PAYMENTS TO CONTRACTORS.

APPENDICES

APPENDIX A

DEFICIENT PRIMARY ROAD MILEAGE (1980)

| Financial District | Number of "Deficient" Miles ¹ | Percent "Deficient" Miles | Number of "Inadequate" Miles ² | Percent "Inadequate" Miles | Number of "Critical" Miles ³ | Percent "Critical" Miles |
|--------------------|--|---------------------------|---|----------------------------|---|--------------------------|
| 1 | 270.9 | 12.8 | 401.4 | 15.1 | 186.6 | 39.4 |
| 2 | 137.2 | 6.5 | 157.7 | 5.9 | 5.6 | 1.2 |
| 3 | 212.6 | 10.0 | 207.1 | 7.8 | 1.8 | 0.4 |
| 4 | 134.5 | 6.3 | 125.6 | 4.7 | 31.9 | 6.8 |
| 5 | 151.9 | 7.2 | 169.7 | 6.4 | 0.0 | 0.0 |
| 6 | 184.8 | 8.7 | 276.8 | 10.4 | 29.4 | 6.2 |
| 7 | 110.8 | 5.2 | 165.8 | 6.2 | 31.0 | 6.6 |
| 8 | 240.6 | 11.3 | 345.6 | 13.0 | 91.3 | 19.3 |
| 9 | 115.4 | 5.4 | 147.2 | 5.5 | 11.1 | 2.4 |
| 10 | 182.4 | 8.6 | 201.0 | 7.5 | 4.5 | 1.0 |
| 11 | 189.2 | 8.9 | 258.0 | 9.7 | 45.2 | 9.6 |
| 12 | 193.9 | 9.1 | 209.2 | 7.8 | 33.6 | 7.1 |
| Total | 2,124.2 | 100.0 | 2,668.1 | 100.0 | 472.0 | 100.0 |

¹Present calculation method Percent deficiency times length.

²Number of miles with sufficiency less than 60 percent.

³Number of miles with sufficiency less than 40 percent.

Source. Compiled by the Office of the Legislative Auditor from department records.

APPENDIX B1

INTERSTATE ALLOCATIONS (FY 1981-82)

| <u>Financial District</u> | <u>Allocation Percent</u> | <u>Allocation Amount*</u> |
|---------------------------|---------------------------|---------------------------|
| 2 | 2.2777 | \$ 904,203 |
| 4 | 5.0159 | 1,991,216 |
| 6 | 4.0832 | 1,620,952 |
| 7 | 17.0428 | 6,765,665 |
| 8 | 25.6024 | 10,163,662 |
| 9 | 12.8736 | 5,110,573 |
| 10 | 11.4666 | 4,552,021 |
| 11 | 16.7016 | 6,630,215 |
| 12 | 4.9362 | 1,959,577 |
| Total | 100.0000 | \$39,698,084 |

*Federal and state funds.

Source: Compiled by the Office of the Legislative Auditor from
department records.

APPENDIX B11

PRIMARY ALLOCATIONS (FY 1981-82)

| <u>Financial District</u> | <u>Allocation Percent</u> | <u>Allocation Amount*</u> |
|---------------------------|---------------------------|---------------------------|
| 1 | 12.7530 | \$ 6,744,905 |
| 2 | 6.4589 | 3,416,033 |
| 3 | 10.0085 | 5,293,372 |
| 4 | 6.3318 | 3,348,811 |
| 5 | 7.1509 | 3,782,023 |
| 6 | 8.6996 | 4,601,111 |
| 7 | 5.2162 | 2,758,784 |
| 8 | 11.3266 | 5,990,499 |
| 9 | 5.4327 | 2,873,288 |
| 10 | 8.5868 | 4,541,453 |
| 11 | 8.9069 | 4,710,750 |
| 12 | 9.1281 | 4,827,740 |
| Total | 100.0000 | \$52,888,769 |

*Federal and state funds.

Source: Compiled by the Office of the Legislative Auditor from department records.

APPENDIX B111

SECONDARY ALLOCATIONS (FY 1981-82)

| <u>County and Financial District</u> | <u>Allocation Percent</u> | <u>Secondary Amount*</u> |
|--|---------------------------|--------------------------|
| Flathead | 4.1663 | \$ 767,552 |
| Lake | 2.0952 | 385,996 |
| Lincoln | 2.6061 | 480,119 |
| FD #1 | 8.8676 | \$1,633,667 |
| Blaine | 2.5712 | \$ 473,689 |
| Glacier | 2.0004 | 368,531 |
| Hill | 3.2204 | 593,290 |
| Liberty | 1.4916 | 274,796 |
| Toole | 2.0569 | 378,940 |
| FD #2 | 11.3405 | \$2,089,246 |
| Daniels | 1.2420 | \$ 228,812 |
| Phillips | 2.5120 | 462,782 |
| Roosevelt | 2.1946 | 404,309 |
| Sheridan | 1.6957 | 312,397 |
| Valley | 3.0696 | 565,509 |
| FD #3 | 10.7139 | \$1,973,809 |
| Dawson | 1.6005 | \$ 294,858 |
| McCone | 1.7134 | 315,658 |
| Prairie | 0.8665 | 159,634 |
| Richland | 1.7201 | 316,892 |
| Wibaux | 0.6511 | 119,951 |
| FD #4 | 6.5516 | \$1,206,993 |
| Fergus | 2.6940 | \$ 496,312 |
| Garfield | 1.6995 | 313,097 |
| Petroleum | 0.6988 | 128,739 |
| FD #5 | 5.0923 | \$ 938,148 |
| Cascade | 2.6524 | \$ 488,648 |
| Chouteau | 4.2920 | 790,710 |
| Judith Basis | 1.4332 | 264,037 |
| Pondera | 1.9934 | 367,242 |
| Teton | 2.2271 | 410,296 |
| FD #6 | 12.5981 | \$2,320,933 |
| Broadwater | 0.8669 | \$ 159,708 |
| Jefferson | 1.0920 | 201,178 |
| Lewis and Clark | 2.2530 | 415,067 |
| FD #7 | 4.2119 | \$ 775,953 |

SECONDARY ALLOCATIONS (FY 1981-82) - Continued

| <u>County and Financial District</u> | <u>Allocation Percent</u> | <u>Secondary Amount*</u> |
|--|---------------------------|--------------------------|
| Granite | 0.8271 | \$ 152,376 |
| Mineral | 0.8088 | 149,004 |
| Missoula | 2.9266 | 539,164 |
| Powell | 1.3755 | 253,407 |
| Ravalli | 2.5026 | 461,051 |
| Sanders | 1.7781 | 327,577 |
| FD #8 | 10.2187 | \$ 1,882,579 |
| Beaverhead | 2.4789 | \$ 456,685 |
| Deer Lodge | 0.5765 | 106,208 |
| Madison | 1.7514 | 322,658 |
| Silver Bow | 0.6194 | 114,111 |
| FD #9 | 5.4262 | \$ 999,662 |
| Gallatin | 2.6563 | \$ 489,367 |
| Meagher | 1.0393 | 191,469 |
| Park | 1.3272 | 244,508 |
| Sweetgrass | 0.9389 | 172,972 |
| Wheatland | 0.7883 | 145,228 |
| FD #10 | 6.7500 | \$ 1,243,544 |
| Big Horn | 2.5762 | \$ 474,610 |
| Carbon | 1.5356 | 282,902 |
| Golden Valley | 0.6591 | 121,425 |
| Musselshell | 1.0881 | 200,459 |
| Stillwater | 1.3688 | 252,172 |
| Treasure | 0.4874 | 89,793 |
| Yellowstone | 2.8232 | 520,115 |
| FD #11 | 10.5384 | \$ 1,941,476 |
| Carter | 1.2723 | \$ 234,394 |
| Custer | 1.5518 | 285,886 |
| Fallon | 1.0157 | 187,121 |
| Powder River | 1.4021 | 258,307 |
| Rosebud | 2.4489 | 451,158 |
| FD #12 | 7.6908 | \$ 1,416,866 |
| Total | 100.0000 | \$18,422,876 |

*Federal and state funds.

Source: Compiled by the Office of the Legislative Auditor from department records.

APPENDIX BIV

URBAN ALLOCATIONS (FY 1981-82)

| <u>City</u> | <u>Allocation Percent</u> | <u>Allocation Amount*</u> |
|-------------|-------------------------------|-------------------------------|
| Anaconda | 2.13 | \$ 142,168 |
| Billings | 22.11 | 1,475,745 |
| Bozeman | 6.04 | 403,143 |
| Butte | 8.90 | 594,036 |
| Glendive | 2.22 | 148,175 |
| Great Falls | 17.95 | 1,198,083 |
| Havre | 2.98 | 198,902 |
| Helena | 7.68 | 512,606 |
| Kalispell | 4.90 | 327,053 |
| Laurel | 1.68 | 112,133 |
| Lewistown | 2.06 | 137,496 |
| Livingston | 2.10 | 140,166 |
| Miles City | 2.59 | 172,871 |
| Missoula | 14.97 | 999,181 |
| Sidney | <u>1.69</u> | <u>112,800</u> |
| Total | 100.00 | \$6,674,558 |

*Federal and state funds.

Source: Compiled by the Office of the Legislative Auditor from department records.

APPENDIX CI

COUNTY ROAD FINANCES (FY1980-81)

| <u>County</u> | <u>Receipts</u> ¹ | <u>Expenditures</u> | <u>Fund Balance</u> ² | <u>Additional Taxing Authority</u> ³ |
|-----------------|------------------------------|---------------------|----------------------------------|---|
| Beaverhead | \$ 730,077 | \$ 709,214 | \$ 241,730 | \$ 60,246 |
| Bighorn | 1,397,046 | 1,107,561 | 543,174 | 385,890 |
| Blaine | 882,817 | 652,350 | 402,462 | 24,089 |
| Broadwater | 170,731 | 221,577 | 57,431 | 4,601 |
| Carbon | 1,028,686 | 1,028,686 | 231,457 | 70,996 |
| Carter | 344,442 | 314,336 | 134,397 | 7,220 |
| Cascade | 1,635,700 | 1,719,000 | 91,600 | 25,052 |
| Chouteau | 753,293 | 695,573 | 388,349 | 19,690 |
| Custer | 413,245 | 441,756 | 248,525 | 14,387 |
| Daniels | 249,638 | 237,832 | 113,769 | 5,579 |
| Dawson | 696,510 | 639,661 | 105,000 | 14,639 |
| Deer Lodge | 488,297 | 523,836 | -0- | -- ⁴ |
| Fallon | 804,248 | 733,749 | 376,609 | 217,865 |
| Fergus | 562,191 | 735,898 | 141,385 | 75,673 |
| Flathead | 3,131,158 | 2,466,799 | 1,182,384 | 219,171 |
| Gallatin | 1,165,684 | 885,684 | 280,000 | 134,766 |
| Garfield | 316,631 | 293,814 | 89,039 | 4,739 |
| Glacier | 945,168 | 826,805 | 571,053 | 130,893 |
| Golden Valley | 133,200 | 100,971 | 146,427 | 16,369 |
| Granite | 234,293 | 217,886 | 285,352 | 64,774 |
| Hill | 977,560 | 985,105 | 310,494 | 24,712 |
| Jefferson | 258,352 | 600,767 | -0- | -0- |
| Judith Basin | 516,004 | 549,631 | 19,276 | 6,957 |
| Lake | 373,003 | 738,833 | 99,527 | 17,653 |
| Lewis and Clark | 922,989 | 890,456 | 311,326 | 92,842 |
| Liberty | 492,714 | 440,424 | 360,086 | 13,401 |
| Lincoln | 1,901,669 | 1,109,252 | 8,588,650 | 512,103 |
| Madison | 401,581 | 323,004 | 189,394 | 88,268 |
| McCone | 549,880 | 525,339 | 175,271 | 8,260 |
| Meagher | 246,887 | 246,887 | -0- | 107 |
| Mineral | 321,549 | 368,933 | 768,871 | 82,935 |
| Missoula | 5,369,879 | 4,791,492 | 496,211 | 360,416 |
| Musselshell | 408,998 | 261,659 | 429,739 | 184,786 |
| Park | 451,811 | 442,676 | 161,684 | 32,298 |
| Petroleum | 210,400 | 170,400 | 136,000 | 39,219 |
| Phillips | 792,100 | 711,400 | 221,500 | 71,177 |
| Pondera | 877,960 | 718,798 | 207,827 | 14,719 |
| Powder River | 854,053 | 624,364 | 509,639 | 598,027 |
| Powell | 372,003 | 409,121 | 316,721 | 132,436 |
| Prairie | 221,956 | 166,251 | 263,964 | 35,438 |
| Ravalli | 1,025,124 | 1,053,818 | 281,189 | 27,527 |
| Richland | 1,972,295 | 1,651,513 | 762,082 | 74,004 |
| Roosevelt | 515,616 | 585,764 | 385,804 | 69,687 |
| Rosebud | 1,279,096 | 1,392,310 | 1,158,017 | 1,365,881 |
| Sanders | 821,100 | 1,037,400 | 1,088,000 | 281,754 |

COUNTY ROAD FINANCES (FY1980-81) - Continued

| <u>County</u> | <u>Receipts</u> ¹ | <u>Expenditures</u> | <u>Fund Balance</u> ² | <u>Additional Taxing Authority</u> ³ |
|---------------|------------------------------|---------------------|----------------------------------|---|
| Sheridan | \$ 1,414,091 | \$ 1,059,240 | \$ 864,629 | \$ 288,587 |
| Silver Bow | 638,969 | 698,610 | -0- | -0- |
| Stillwater | 428,252 | 373,610 | 168,866 | 25,268 |
| Sweet Grass | 239,012 | 261,229 | 145,701 | 4,118 |
| Teton | 749,135 | 731,855 | 229,460 | 50,149 |
| Toole | 644,536 | 659,497 | 178,753 | 27,813 |
| Treasure | 253,519 | 219,785 | 130,259 | -0- |
| Valley | 681,229 | 755,560 | 283,089 | 13,371 |
| Wheatland | 129,850 | 145,341 | 67,022 | -0- |
| Wibaux | 281,981 | 294,440 | 74,511 | 9,426 |
| Yellowstone | <u>2,143,488</u> | <u>2,029,344</u> | <u>944,972</u> | <u>628,901</u> |
| Total | \$45,821,696 | \$42,577,096 | \$25,958,677 | \$6,639,660 |

¹Receipts include property taxes, motor vehicle license fees, fuel tax distribution from the state, payments-in-lieu of taxes, and other minor sources. Does not include federal-aid allocations or state matching funds.

²Total of Road, Bridge and Gas Tax Funds.

³Additional Revenue if Road and Bridge Levies were at statutory maximum.

⁴Consolidated government with only general fund.

Source: Compiled by the Office of the Legislative Auditor from department records.

APPENDIX C11

CITY STREET FINANCES (FY 1980-81)

| <u>City</u> | <u>Receipts</u> ¹ | <u>Expenditures</u> ² | <u>Balance</u> ³ |
|-------------|------------------------------|----------------------------------|-----------------------------|
| Anaconda | \$ 177,000 | \$ 175,000 | \$ 18,000 |
| Billings | 1,408,000 | 2,847,000 | 274,000 |
| Bozeman | 703,932 | 217,006 | -0- |
| Butte | 474,000 | 474,000 | 22,000 |
| Glendive | 109,292 | 176,258 | -0- |
| Great Falls | 986,000 | 870,000 | 360,104 |
| Havre | 169,026 | 169,026 | -0- |
| Helena | 727,565 | 727,565 | -0- |
| Kalispell | 278,232 | 271,289 | 32,701 |
| Laurel | 159,000 | 220,440 | 18,800 |
| Lewistown | 78,925 | 35,425 | 86,500 |
| Livingston | 307,941 | 363,511 | 35,833 |
| Miles City | 442,382 | 191,034 | 105,025 |
| Missoula | 900,000 | 2,459,000 | 93,000 |
| Sidney | <u>135,074</u> | <u>135,074</u> | <u>-0-</u> |
| Total | \$7,056,369 | \$9,331,628 | \$1,045,963 |

¹Does not include \$3.7 million in bond sales.

²Includes bond proceeds used for construction but does not include \$2.2 million used for bond redemption and interest.

³Does not include \$1.5 million in SID balances.

Source: Compiled by the Office of the Legislative Auditor from department records.

AGENCY REPLIES

DEPARTMENT OF HIGHWAYS



TED SCHWINDEN GOVERNOR

2701 PROSPECT

STATE OF MONTANA

HELENA MONTANA 59620

June 18, 1982

RECEIVED

JUN 18 1982

MONTANA LEGISLATIVE AUDITOR

Robert R. Ringwood
Legislative Auditor
State Capitol
Helena, MT 59620

Dear Mr. Ringwood:

Attached are the Department's responses to recommendations listed in your audit of this agency.

If there are further questions to be answered, please advise.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary J. Wicks".

Gary J. Wicks, Director
Department of Highways

GJW/JLP/pz/10J
Attachment

Performance Audit
DEPARTMENT OF HIGHWAYS
Preconstruction and Construction Activities

RECOMMENDATION #1

WE RECOMMEND THE LEGISLATURE EITHER:

- A. ELIMINATE FINANCIAL DISTRICTS FOR THE INTERSTATE AND PRIMARY SYSTEMS AND ALLOW THE DEPARTMENT TO SET PROJECT PRIORITIES AND ALLOCATE FUNDS ON A STATEWIDE BASIS; OR
- B. REDUCE THE NUMBER OF FINANCIAL DISTRICTS TO FIVE AND BASE PRIMARY ROAD ALLOCATIONS ON COSTS AND DEPARTMENT DEFINED DEFICIENCY STANDARDS.

RECOMMENDATION #2

WE RECOMMEND THE LEGISLATURE EITHER:

- A. ELIMINATE FINANCIAL DISTRICTS AND COUNTY DISTRIBUTIONS FOR SECONDARY AND OFF-SYSTEMS FUNDS AND ELIMINATE URBAN AREA DISTRIBUTIONS FOR URBAN FUNDS AND ALLOW THE DEPARTMENT TO SET PROJECT PRIORITIES AND ALLOCATE FUNDS ON A STATEWIDE BASIS; OR
- B. FOR SECONDARY, URBAN, AND OFF-SYSTEM PROJECTS, ALLOCATE THE FUNDS TO FIVE FINANCIAL DISTRICTS AND BASE ALLOCATIONS ON COMMON CRITERIA RELATED TO NEED AND COSTS.

RECOMMENDATION #3

WE RECOMMEND THE LEGISLATURE REVISE THE FINANCIAL DISTRICT LAW TO REQUIRE SOME PERCENTAGE OF LOCAL GOVERNMENT MATCHING FUNDS FOR SECONDARY, URBAN, AND OFF-SYSTEM PROJECTS.

RESPONSE:

These recommendations are addressed to the Legislature and should be answered by that body in the form of legislation.

RECOMMENDATION #4

WE RECOMMEND THE DEPARTMENT PLACE A SINGLE PERSON IN CHARGE OF ALL FUNCTIONS IN EACH REGIONAL OFFICE.

RECOMMENDATION #5

WE RECOMMEND THE DEPARTMENT ESTABLISH A SUPERVISOR FOR THE REGIONAL MANAGERS OUTSIDE THE PRESENT FUNCTIONAL DIVISIONS.

RECOMMENDATION #6

WE RECOMMEND THE DEPARTMENT REDUCE ITS NUMBER OF FIELD REGIONS TO FIVE.

RESPONSE:

All of these recommendations have been accomplished under the recent reorganization of the Department. During the past year we studied ways to reorganize and finalized that plan in April. We established 5 district offices from the present 11 division offices, placed a district engineer in charge of each district and have those engineers reporting to the Director's office.

RECOMMENDATION #7

WE RECOMMEND:

- A. THE LEGISLATURE ESTABLISH COMMON BOUNDARIES FOR COMMISSION DISTRICTS AND FINANCIAL DISTRICTS IF FINANCIAL DISTRICTS ARE RETAINED.
- B. THE DEPARTMENT GENERALLY USE THE SAME BOUNDARIES AS SET BY THE LEGISLATURE FOR THE ABOVE DISTRICTS, FOR THEIR CONSTRUCTION, MAINTENANCE, RIGHT-OF-WAY, AND GVW DISTRICTS.

RESPONSE:

- A. This recommendation is to be addressed by the Legislature in the form of legislation.
- B. This recommendation has been accomplished under the Department's reorganization mentioned above. Due to maintenance problems associated with terrain, we were not able to follow the exact district boundary lines adopted under executive reorganization in 1971. The changes we made will result in a more efficient department. We do not believe that the right-of-way, construction, maintenance and GVW boundaries should be established by statute.

RECOMMENDATION #8

WE RECOMMEND THE DEPARTMENT STUDY A PROJECT MANAGER SYSTEM FOR PRECONSTRUCTION PROJECTS.

RESPONSE:

The Audit Report recognizes the complexity of the preconstruction process. The area engineer is as close as we come to having a project manager for preconstruction projects. This position is responsible for about 50 projects. This is a large workload considering his responsibilities for location, environmental, and design aspects in addition to coordinating the preconstruction process.

The Preconstruction Management System presently being developed will be of assistance in better managing the preconstruction program. With this system we will be able to track projects and to analyze manpower and budget needs better than we have in the past.

The Department will study methods of managing the preconstruction workload, in particular, the project manager concept for the large comprehensive projects.

RECOMMENDATION #9

WE RECOMMEND THE DEPARTMENT RETAIN ITS PRESENT CENTRALIZED SYSTEM FOR LOCATION SELECTION, ENVIRONMENTAL ASSESSMENT, AND DESIGN ACTIVITIES.

RESPONSE:

The Department concurs. We conducted extensive reviews on whether we should have a centralized or decentralized system and found that the current system should be retained.

RECOMMENDATION #10

WE RECOMMEND THE DEPARTMENT STUDY CENTRALIZING RIGHT-OF-WAY ACQUISITION.

RESPONSE:

There are two issues to resolve. One has to do with centralization versus decentralization. On this the Department believes the right-of-way appraisal and negotiation functions should be handled in the districts by agents familiar with local people and local problems. Thus, the advantage of decentralization of these functions outweighs the argument that centralizing this work would be more efficient. On the other hand, review appraisal work and land records will be centralized because the need for the knowledge of local conditions does not affect this work.

With regard to the comparison of other states practices and the number of people required for right-of-way activities, the Department feels the number and types of responsibilities must be taken into account. For example, outdoor advertising enforcement and handling utility agreements and railroad agreements is a Right-of-Way Bureau activity in Montana. Such is not the case in two states which were used for comparison. Also, the number of parcels acquired in Montana in the year of study is lower than usual. Montana acquired 290 parcels in 1981; so far in 1982, 286 have been acquired with a year-long projection amounting to 481.

The Department is currently studying the staffing needs for all of the right-of-way activities. It is expected that some reduction in force will result. Moreover, the Department will evaluate the reorganized staff to determine if future changes are needed.

RECOMMENDATION #11

WE RECOMMEND THE LEGISLATURE DO ONE OF THE FOLLOWING:

- A. RETAIN THE COMMISSION AS A QUASI-JUDICIAL AGENCY AND SET FORTH MEANINGFUL DUTIES AND RESPONSIBILITIES FOR THE COMMISSION; OR
- B. MAKE THE COMMISSION ADVISORY BY STATUTE; OR
- C. TERMINATE THE COMMISSION.

RESPONSE:

The Department believes the Commission serves a useful role and that role should be expanded. Concurrence in the selection of projects is clearly one area where the commission's role should be expanded by statute.

RECOMMENDATION #12

WE RECOMMEND THE DEPARTMENT:

- A. PREPARE A NEEDS ASSESSMENT.
- B. UPDATE THIS ASSESSMENT BIENNIALLY.

RESPONSE:

The Department began working on a needs assessment last November and plans to complete it by this year. We plan to update it biennially.

RECOMMENDATION #13

WE RECOMMEND THE DEPARTMENT DEVELOP AND USE REPORTS SHOWING TIME SPENT ON VARIOUS DEPARTMENT ACTIVITIES.

RESPONSE:

As mentioned in the Project Monitoring section, time reporting would be beneficial in determining if department personnel are being used sufficiently and within budget constraints. By switching to the MAPSS, the Department decided not to continue with time reporting. It was decided that completing the project on time was the main objective, not who worked how many hours. Accounting records already record time spent on projects via bi-weekly time sheets. We feel this should remain an Accounting function, not a project monitoring or Engineering function.

RECOMMENDATION #14

WE RECOMMEND THE DEPARTMENT ESTABLISH A CHECKLIST FOR ITEMS TO BE CONSIDERED IN THE ENVIRONMENTAL ANALYSES AND AN OUTLINE OF THE FORMAT THE ANALYSES SHOULD FOLLOW.

RESPONSE:

We concur.

RECOMMENDATION #15

WE RECOMMEND THE DEPARTMENT IMPLEMENT A FORMAL IN-HOUSE TRAINING PROGRAM WHICH INCLUDES ALL DESIGN PERSONNEL.

RESPONSE:

It is agreed that training is an important element of maintaining consistently high quality highway design. We do, however, take exception to the statement "The Department should not rely totally on the undemonstrated teaching ability of experienced designers to train inexperienced design personnel in the fundamentals of road design". The personnel we hire are required to have a good math background and education or experience in drafting and/or engineering technology. Design supervisors are selected not only for their ability to do design but also for their ability to manage work and train those who work for them.

Extensive training, through NHI, FHWA, and other courses are continually presented. An example is a recently completed three week course at MSU which was designed to improve the abilities of our design technicians. This course was extremely successful.

During the past year the Department established a training bureau to analyze the training needs of the entire department. The recommendation is being implemented through this training bureau.

RECOMMENDATION #16

WE RECOMMEND THE DEPARTMENT:

- A. STUDY THE USE OF LIMITED FULL-TIME LOCATION SURVEY CREWS.
- B. PLACE THE LOCATION SURVEY CREWS UNDER THE SUPERVISION OF THE PRECONSTRUCTION BUREAU.

RESPONSE:

At the present time the Department does not intend to employ full time location survey crews because it would add to the number of FTEs. This would occur at a time when the Department is attempting to reduce its forces.

RECOMMENDATION #17

WE RECOMMEND THAT THE DEPARTMENT ENCOURAGE THE USE OF AUTOMATED DESIGN BY:

- A. TRAINING DESIGN PERSONNEL IN COMPUTER APPLICATIONS.
- B. DEVELOPING A COMPUTER LIAISON POSITION WITHIN THE LOCATION AND ROAD DESIGN SECTION.

RESPONSE:

It is agreed that the Department should utilize the most modern, cost effective design methods and equipment available. Currently, four Location and Road Design personnel are enrolled in an Introduction to Computer Science course being put on by Carroll College. The Department will establish a computer liaison position in Preconstruction.

RECOMMENDATION #18

WE RECOMMEND THE DEPARTMENT:

- A. ESTABLISH CRITERIA FOR WHEN IN-DEPTH ANALYSIS OF HYDRAULIC DESIGN IS NOT NEEDED.
- B. ALLOW ROAD DESIGNERS TO DO THE HYDRAULIC DESIGN WHEN IN-DEPTH ANALYSIS IS NOT NEEDED.

RESPONSE:

The Department will establish criteria when in-depth analysis of hydraulic design is not needed and will allow road designers to do this design when an in-depth analysis is not needed. However, it should be noted that the Federal Highway Administration has reacted negatively to this concept in the past. If it is determined that Federal funds for highways would be jeopardized in any way, the Department would have to reconsider.

RECOMMENDATION #19

WE RECOMMEND THE DEPARTMENT:

- A. DOCUMENT ALL CONSIDERATIONS UTILIZED IN THE SELECTION OF CONSULTANTS.
- B. IMPLEMENT FORMAL EVALUATION PROCEDURES SO THAT PAST PERFORMANCE OF CONSULTANTS CAN BE OBJECTIVELY USED AS A SELECTION FACTOR.

RESPONSE:

It should be understood the Department has made efforts to keep the use of consultants to a minimum during the past 18 months.

We believe we have been following this recommendation on the majority of our consultant selections. However, closer attention will be given and documentation will be improved on all future selections.

We will contact other states to obtain information on evaluation procedures. We will then develop and implement an evaluation procedure after reviewing this information.

RECOMMENDATION #20

WE RECOMMEND THAT THE DEPARTMENT EXPAND THE USE OF PREVISITS WITH LANDOWNERS BY RIGHT-OF-WAY PERSONNEL.

RESPONSE:

We concur to the extent that right-of-way manpower is available to conduct this activity.

RECOMMENDATION #21

WE RECOMMEND THAT THE DEPARTMENT BEGIN COLLECTION OF MARKET DATA PRIOR TO THE START OF THE APPRAISAL AND ACQUISITION PHASE.

RESPONSE:

We agree with this recommendation. In fact, we are already doing this where feasible. We wish to note, however, that we should not collect market data very far ahead of acquisition due to the fact that sales data become outdated very quickly in an active real estate market.

RECOMMENDATION #22

WE RECOMMEND THE DEPARTMENT EXPAND THE USE OF COMBINING THE APPRAISAL AND ACQUISITION PROCESSES.

RESPONSE:

We agree with this recommendation but we are dependent on Federal Highway Administration authorization to raise the value limits for this procedure. We recently learned that there is a proposed change in Federal regulations which will raise this limit to \$700 and possibly higher. At the present time, FHWA does not allow us to combine the two processes if the value is more than \$300.

RECOMMENDATION #23

WE RECOMMEND THE DEPARTMENT SOLICIT ESTIMATES FROM TWO OR MORE FEE APPRAISERS.

RESPONSE:

We are obligated to comply with OMB Circular A-102, Attachment 0, so we will continue to solicit estimates from two or more fee appraisers, where required. However, there is a provision in this regulation which provides for non-competitive negotiation under certain circumstances. One of those circumstances is when, "the item is available only from a single source". One of the problems we have in obtaining the services of fee appraisers is finding appraisers who are both qualified to handle the particular assignment and who can do the work within our specified time frame. Although we generally contact more than one appraiser on each assignment, we often find only one who can meet these requirements. We believe that in this situation non-competitive negotiation is acceptable on the basis that there is only one appraiser available who can meet the requirements of the job.

RECOMMENDATION #24

WE RECOMMEND THAT LEGISLATION BE ENACTED TO:

- A. REVISE OR DELETE THOSE QUALIFICATIONS FOR COMMISSION MEMBERS WHICH ARE NOT REASONABLY RELATED TO PERFORMING COMMISSION DUTIES.
- B. PROVIDE FOR UNIFORM COMPENSATION OF CONDEMNATION COMMISSION MEMBERS AND SPECIFY WHO IS RESPONSIBLE FOR THE PAYMENT OF THE COMMISSIONERS.

RESPONSE:

We concur and recommend that the Legislature address this problem.

RECOMMENDATION #25

WE RECOMMEND THAT LEGISLATION BE ENACTED GIVING THE DEPARTMENT THE OPTION TO SELL LAND AT A PUBLIC AUCTION OR THROUGH SEALED BIDS.

RESPONSE:

We strongly support this recommendation.

RECOMMENDATION #26

WE RECOMMEND LEGISLATION BE ENACTED RAISING THE VALUE OF LAND AT WHICH A PRIVATE SALE COULD BE CONDUCTED TO A LEVEL TO APPROXIMATE THE COST OF THE SALE.

RESPONSE:

We concur.

RECOMMENDATION #27

WE RECOMMEND THAT LEGISLATION BE ENACTED TO REMOVE THE SUCCESSOR IN INTEREST PROVISION OF THE HIGHWAY LAW IF MORE THAN ONE PERSON CLAIMS EQUAL ENTITLEMENT, OR IF THE USE OF THE LAND HAS MATERIALLY CHANGED.

RESPONSE:

We concur.

RECOMMENDATION #28

WE RECOMMEND THAT THE DEPARTMENT SET THE MINIMUM FEES OF USE PERMITS AND LEASES TO AT LEAST COVER THE COST OF ISSUING AND RENEWING THE PERMITS AND LEASES.

RESPONSE:

We agree with this recommendation. During the past three months we have been reviewing fee schedules for our permits and will be making necessary changes to at least recover our costs.

RECOMMENDATION #29

WE RECOMMEND THE DEPARTMENT ADOPT A PREQUALIFICATION SYSTEM WHICH REVIEWS THE TOTAL STATE HIGHWAY CONTRACTS OUTSTANDING FOR A GIVEN CONTRACTOR.

RESPONSE:

The Department disagrees. The contractor's total workload for private work, city and county contracts, and other agencies would have to be considered. To do this the Department would have to audit the contractor's books. This would certainly be objectionable to the contracting community. Moreover, since bonding companies must make their own determination of a contractor's ability to process work, the Department would, in essence, be doing the bonding companies' work for them.

RECOMMENDATION #30

WE RECOMMEND THE DEPARTMENT REASSES THE PREQUALIFICATION AMOUNT NEEDED FOR A CONTRACTOR TO RECEIVE AN UNLIMITED RATING.

RESPONSE:

We concur and will make necessary changes.

RECOMMENDATION #31

WE RECOMMEND THE DEPARTMENT IMPLEMENT A FORMAL CONTRACTOR EVALUATION SYSTEM AND USE THE DATA GATHERED AS THE BASIS FOR ITS PERFORMANCE RATING.

RESPONSE:

The Department has implemented a review of adjoining states formal contractor evaluation systems to determine a procedure to use in Montana. When the review is completed a procedure will be developed and implemented.

RECOMMENDATION #32

WE RECOMMEND THE DEPARTMENT PREPARE A MORE DETAILED AVERAGE COST ANALYSIS OF PAST BID ITEMS.

RESPONSE:

The Department believes the presently available data base and the detail it provides to be adequate. Final estimates of cost are prepared on a project by

RESPONSE Continued
(Recommendation #32)

project basis immediately prior to bid letting. Inflation, contractor availability, and other factors reduce the value of extensive historical data to such an extent as to make keeping it questionable.

RECOMMENDATION #33

WE RECOMMEND THAT THE DEPARTMENT DELEGATE AUTHORITY TO APPROVE CHANGE ORDERS FOR AT LEAST \$5,000 TO THE DIVISION LEVEL.

RESPONSE:

This recommendation was accomplished under the reorganization plan. In fact we made the level \$10,000 rather than the recommended \$5,000.

RECOMMENDATION #34

WE RECOMMEND THAT THE DEPARTMENT FULLY IMPLEMENT A PRECHECKING SYSTEM IN ALL DIVISIONS TO AID IN PROCESSING THE FINAL PAYMENTS TO CONTRACTORS.

RESPONSE:

This recommendation was implemented in November 1981. Final payments to contractors are now being processed within 30 to 120 days after completion.

JLP/pz/337M

18 Cypress Dr.
Havre, MT. 59501
June 15, 1982

RECEIVED

JUN 17 1982

Mr. Scott A. Seacat
Principal Audit Manager
Office of Legislative Auditor
Helena, MT. 59620

MONTANA LEGISLATIVE AUDITOR

Subject: Highway Department and
Commission

Dear Mr. Seacat:

This will acknowledge your letter of June 9th, and herein is my response to the above subject. I am restricting my contribution to four areas of concern, in which I have attained a limited knowledge of our operations, in the past 15 months.

1. The Financial District Law: It appears to me that the present division of funds under this law is unduly restrictive, and I strongly favor the proposal to reduce the number of districts to 5, and I believe they should parallel the Commission Districts. (Recommendation #1, Item B, Page 30.)
2. Secondary, Urban, and Off-System Funding: I feel I do not have enough background information to suggest revisions in funding aspects of this subject, but I would support the basic concept as expressed in Recommendation # 2, Item 3.
3. Legislative Concern, Page 59: This item does not necessarily suggest a recommendation, but I feel that even with my limited service, I must comment that I have found no evidence of "the dual role-----allows each entity to shield the other from criticism so that no strict accountability exists." There are dual roles in other areas of government, and to me this does not necessarily suggest inefficiencies or the shirking of responsibility.
4. Commission Duties, Page 61: I am certain there exists considerable difference of opinion among individual members of the present Commission on the duties and the amount of time they can devote to Commission meetings and related responsibilities.

I take the position that the Commission's role should be expanded so we can make a genuine contribution in the policy-making field for the Department. I feel this is indicated in Recommendation 11, Item A, so I endorse its intent.

I have intentionally limited my suggestions to areas that I have become somewhat acquainted with--and I trust it will make a contribution to a more efficient and well-run department.

Very sincerely yours,


Hiert L. Hellebust

GALLAGHER, ARCHAMBEAULT & KNIERIM

PROFESSIONAL CORPORATION - ATTORNEYS AT LAW

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GLASGOW MONTANA 59230
(406) 228-9331

June 18, 1982

RECEIVED

JUN 21 1982

MONTANA LEGISLATIVE AUDITOR

Mr. Scott A. Seacat
Principal Audit Manager
Performance and Sunset Audits
Office of the Legislative Auditor
State Capitol
Helena, Montana 59620

SUBJECT: Performance Audit - Department of Highways

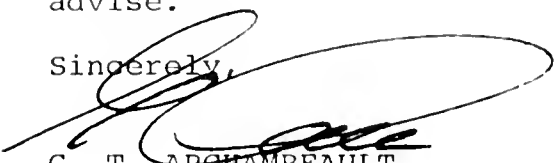
Dear Mr. Seacat:

Thank you for your letter of June 9, 1982 asking for my comments in connection with the performance audit report. As you probably know, I was appointed to the Montana Highway Commission on April 5, 1982, so I am not well versed in departmental or commission matters. Therefore, my responses to your recommendations may change after I have served for a longer period of time. I will also limit my responses to only five of the recommendations included in your extensive audit. My response would be as follows:

| <u>RECOMMENDATION</u> | <u>RESPONSE</u> |
|-----------------------|---|
| No. 1 | I favor alternative B on page 30. |
| No. 2 | I favor recommendation 2 on page 35. |
| No. 3 | I would favor adoption of this recommendation on page 37. |
| No. 7 | I favor recommendation A on page 46. |
| No. 11 | I favor recommendation A on page 61. |

If further clarification of my response is necessary, please advise.

Sincerely,


G. T. ARCHAMBEAULT

GTA/fl



JOHN SULLIVAN, Editor and Publisher

June 17, 1982

RECEIVED

JUN 24 1982

MONTANA LEGISLATIVE AUDITOR

Legislative Audit Committee
Montana State Capitol
Helena, Montana 59620

Gentlemen:

As a member of the Montana Highway Commission, I have received and reviewed the final draft of the performance audit of the Department of Highways, recently completed by the office of the Legislative Auditor.

With particular reference to the audit's comments on the Highway Commission, I concur with the recommendation made by the auditors that the role and responsibilities of the commission must be more clearly defined, or the commission should be eliminated. As a member for the past year and one-half, I have been particularly frustrated by the vague and confusing nature of my responsibilities, and I was very much in favor of developing a "memorandum of understanding" of the respective roles of the Department and the Commission. As the report accurately indicates, a draft memorandum was developed by Department staff, but tabled by my colleagues without further discussion.

Among the implied duties of the Commission, I feel, is that of providing some public overview of the Department's operations, and perhaps some public input into priorities for highway projects. Because of the nature of the respective roles of the commission and the department, however, the commission is unable to perform this role effectively, because it lacks the power to do so.

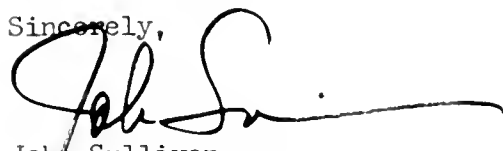
As to other recommendations in the audit report, I would only concur that the financial districts need a detailed review, and at minimum a reorganization if not elimination.

I would also agree that the Department's general procedures for setting project priorities need a thorough review.

I cannot comment on the technical portions of the report, because of a lack of knowledge of the areas.

I found the report thorough, and comprehensive. I stand ready and willing to work with the auditor and the legislature to do what I can to develop legislation which will improve the organization and operation of the Montana Highway Commission and the Department of Highways.

Sincerely,



John Sullivan
Commissioner - District 2

**MONTANA
ASSOCIATION OF
COUNTIES**

1802 11th Avenue
Helena, Montana 59601
(406) 442-5209

June 22, 1982

Scott A. Seacat
Principal Audit Manager
Office of the Legislative Auditor
State Capitol
Helena, Montana 59620

RECEIVED

JUN 22 1982

MONTANA LEGISLATIVE AUDITOR

Dear Mr. Seacat:

Enclosed are the Montana Association of Counties comments on the Performance Audit, Department of Highways, Preconstruction and Construction Activities.

Page 24 - Statement: The financial district law does not allocate primary funds to the areas of the state with the worst primary roads as defined by the department.

This is not a true statement as each financial district is allocated funds on a percentage basis (refer to appendix BII).

Page 24 - Statement: The department also has problems with coordinating funds for projects which cross financial district boundaries.

While it is true that many primary roads do cross financial district boundaries, this is a necessary evil. It is overstated as a problem, however, as the average road project ranges only 8-10 miles and several projects will be needed to complete the road regardless of the financial district limits. This same incremental road building is prevalent also at the state boundaries and does not appear to cause any hardship as to road building or road quality.

Page 29 - Statement: The department could fund projects where the need is greatest.

What is, and how do you define, need?

Page 30 - Statement: Reduce the number of financial districts to five and base primary road allocations on costs and department defined deficiency standards.

The Montana Association of Counties opposes any alteration or reduction of the present financial district program. The present system provides for a reasonable and equitable distribution of funds.

Page 33 - Statement: Elimination of financial districts and county distributions for secondary and off-system funds would allow the department to set project priorities and fund these projects on a statewide basis after receiving each local government's priorities.

How and who would set the priorities, and what would be the ranking criteria? What would be added to the selection process to give the local governments' priorities some weight?

MACo

Page 34 - Recommendation #2: That financial districts be eliminated and the department set project priorities, or the secondary projects be allocated to five financial districts and base allocation on common criteria related to need and costs.

Elimination of existing financial districts will not provide for a fair and equitable distribution for all areas of the state. Criteria is vague and rather abstract. What is meant by common criteria related to need and cost?

Page 35 - Statement: Requiring local match would give local officials more responsibility over secondary, urban and off-system projects.

The initial draft stated - department officials believe some local match would be beneficial. It is interesting that department of highways personnel now recommend funding sources. The responsibility for the project rests entirely on the department of highways as to design and contract. If you seriously want to pursue local responsibility, local governments should be given the opportunity to use local forces to complete the jobs.

Page 35 - Statement: The counties seem to have sufficient funds available.

The key word is seem. A careful analysis of each fund on a county-by-county basis would indicate the reason for each balance. For example, not all money is spent evenly each quarter, and if major projects are complete, it is usually over the summer months. Money must be available for snow removal during the winter. However, if a light snow year prevails, monies are carried over to the following year. The \$26 million road balance is not entirely free and available for road matching funds.

Recommendation #3: Local government match.

Requiring such a match will not bring increased responsibility over secondary projects. Requiring more local money increases the tax burden on local residents in paying for roads normally used by everyone and paid for by the state.

In conclusion, it appears only Department of Highways comments and recommendations were included in this audit report. No sign of a single local government official's response was noted. This is the very reason local governments insist that "highway" be defined and allocations of monies be spelled out before financial districts are reduced or eliminated. Local governments are an integral part of Montana's transportation system.

Sincerely,



Michael Stephen
Executive Director

MS/ds

cc: MACo Executive Committee

